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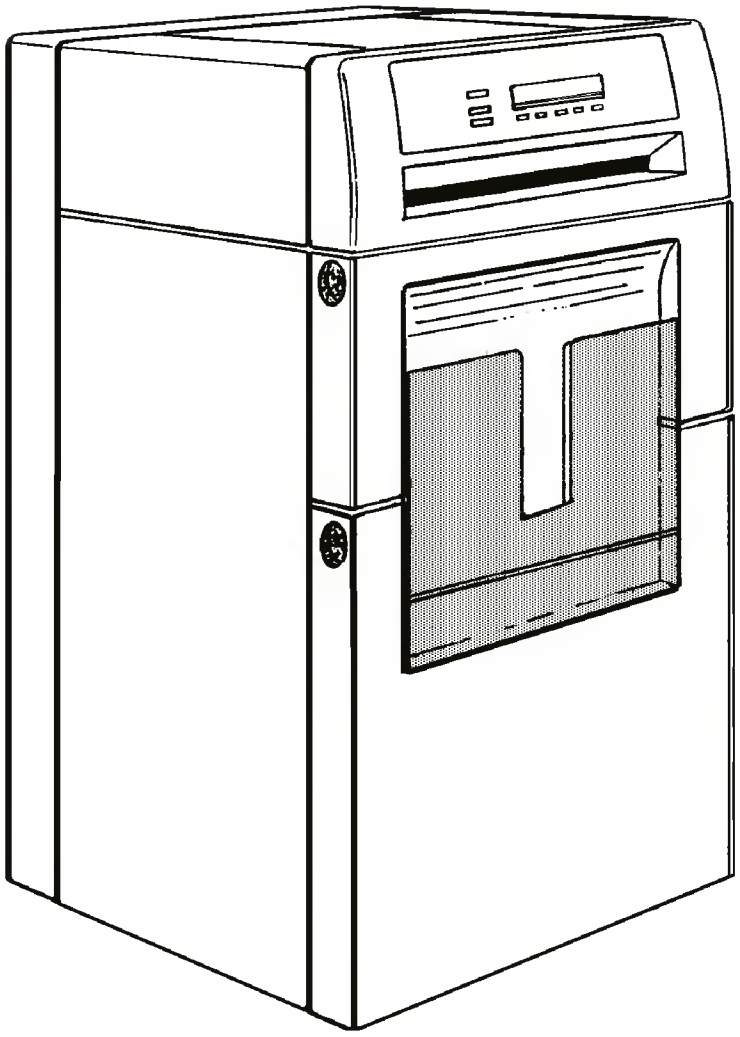
DIAGNOSTICS MANUAL

for the

Kodak X-Omat MULTILOADER 300 / 300 Plus



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ESD

This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use care to prevent damage during all service procedures.

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DF ERROR CODE OF MAGAZINE TASK 5-26
F0 ERROR CODE OF MAGAZINE TASK 5-26
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D1 ERROR CODE OF INTERFACE TASK 6-5
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DC ERROR CODE OF INTERFACE TASK 6-6
F0 ERROR CODE OF INTERFACE TASK 6-6
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F8 ERROR CODE OF PROCESSOR TASK 7-12
F9 ERROR CODE OF PROCESSOR TASK 7-12
FA ERROR CODE OF PROCESSOR TASK 7-12
FD ERROR CODE OF PROCESSOR TASK 7-12
FE ERROR CODE OF PROCESSOR TASK 7-13
FF ERROR CODE OF PROCESSOR TASK 7-13

1. INTRODUCTION

LAP TOP COMPUTER HARDWARE REQUIREMENTS

To service the KODAK X-OMAT Multiloader 300 a LAP TOP COMPUTER with the following minimum requirements should be used.

- Industry Standard fully compatible.
- Complete MS-DOS installed.
- 3.5" diskette drive, 1.44 MB.
- 1 MB RAM.
- 20 MB HARD DISK.
- Serial Port RS 232-C
- AC Adapter.
- In addition the DATA CABLE TL 4391 is needed.

LAP TOP COMPUTER SOFTWARE REQUIREMENTS

The complete MS-DOS SYSTEM has to be installed.

It is possible to download the ML300 HISTORY FILES to a DISKETTE. For this FUNCTION the AUTOEXEC.BAT FILE has to include the PATH information. If the STANDARD SEARCH PATH for DOS COMMANDS is not included the FUNCTION MAKE HISTORY DISK will not work. Mostly the MS-DOS is loaded into a DIRECTORY called \DOS. It is possible that on your system another name is used.

Make sure that the following is included into the AUTOEXEC.BAT FILE.

- PATH C:\DOS;.....
- SET COMSPEC = C:\DOS\COMMAND.COM

README FILE

On the SERVICE SOFTWARE DISKETTE is a README FILE. This FILE contains additional information to the SOFTWARE. Especially when an UPDATE is made.

- Start the LAP TOP.
- Insert the SERVICE SOFTWARE DISKETTE into DRIVE A:
- Select DRIVE A:
- Key in **README**
- Press ENTER
- The README FILE is now displayed.

HOW TO INSTALL THE SERVICE SOFTWARE

The install of the SERVICE SOFTWARE is automatic.

Start the LAP TOP.

- Insert the SERVICE SOFTWARE DISKETTE into DRIVE A:
- Select DRIVE A:
- Key in **INSTALL**
- Press **ENTER**
- The SERVICE SOFTWARE is now loaded onto the HARD DISK C:\XML300
- After the SOFTWARE is loaded take out the DISKETTE.

HOW TO START THE DIAGNOSTICS

The DIAGNOSTIC PROGRAM resides on the LAP TOP HARD DISK DRIVE C:. It is there in the DIRECTORY XML300.

- Connect the LAP TOP via the DATA CABLE with the ML 300. The CONNECTOR is at the rear of the MULTILOADER.
- Power up the LAP TOP.
- Select DIRECTORY XML300 on DRIVE C:
- Key in **cd \ XML300** and press ENTER
- Key in **START** and press ENTER.
- The GLOBAL MENU of the DIAGNOSTICS PROGRAM is displayed.
- Select the desired program with the CURSOR KEYS and press RETURN.

HOW TO LEAVE THE DIAGNOSTICS

Always use the correct procedure to leave the DIAGNOSTICS.

- Go back to the GLOBAL MENU.
- Quit the program.
- Disconnect the LAP TOP from the ML300.

SWITCH SETTING ON MAIN PROCESSOR PCB A1

S1-1

For the position of S1 see figure 1-1

Note

This RESET cannot solve a real hardware problem or a film jam when it tries to recover from the problem. In such a case the problem will occur again in the next cycle. This means an exposed FILM would become lost. For this reason set S1-1 only to ON if the CUSTOMER is aware of this risk and if he is willing to accept it.

Normally S1-1 should be set to **OFF** (down). In this case some errors can only be reset with the LAP TOP (see the DIAGNOSTICS MANUAL). If S1-1 is set to **ON** (up) the OPERATOR can reset the XML300 after every fault just by pressing the left-hand BUTTON. The OPERATOR can now try to start another cycle.

After selecting "FUNCTION" on the OPERATOR CONTROL PANEL the following selection is displayed:

TYPE 2 **USAGE** **LANG** **CLEAR**

When S1-1 is ON (up) an altered selection is displayed:

TYPE 2 **SYSTEM** **USAGE** **LANG** **CLEAR**

SYSTEM contains the following 4 options:

TIME	This gives date and time.
HISTO	This gives information on the last cycle. It is similar to the ERROR INFORMATION accessible via S2-2. **THIS INFORMATION CAN ONLY BE ANALYSED BY THE SPECIALISTS IN THE FACTORY.**
CONTIN	Continuous Loop. The unload/load cycle is repeated continuously.
INFO	The SOFTWARE VERSION of the XML300 and of the PROCESSOR is displayed.

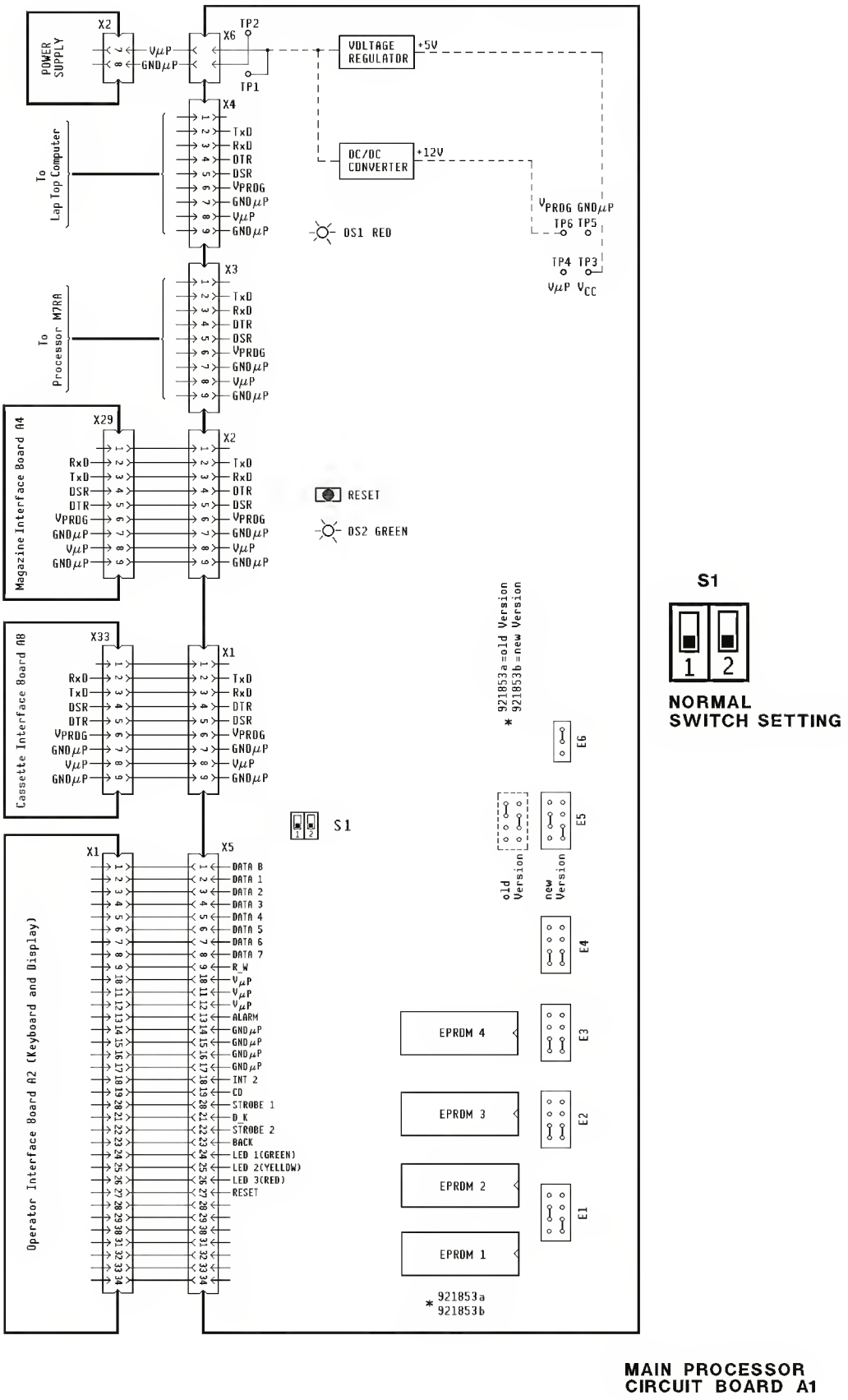
S1-2

Caution

Do not leave S1-2 in the up position. The CUSTOMER could loose exposed films if for any reasons the Processor is switched off. Use S1-2 in the up position only for trouble shooting.

NORMALLY S1-2 SHOULD BE SET TO OFF (DOWN). IF IT IS SET TO ON (UP) TWO DIFFERENT OPTIONS ARE ENABLED:

- **The XML300 is running while the Processor is turned off. After POWER UP an error message is displayed and can be overridden by pressing CLEAR. From this moment on the turned off PROCESSOR will be ignored.**
- ERROR INFORMATION can be displayed on the OPERATOR CONTROL PANEL. In case of a problem press the second key from the left and the information will be displayed. The ERROR INFORMATION can be downloaded to the HISTORY DISKETTE. This DISKETTE can then be sent to the factory for analysing the problem.



S1

NORMAL SWITCH SETTING

MAIN PROCESSOR CIRCUIT BOARD A1

figure 1-1

SAFETY PRECAUTIONS

Special care is necessary when working with a LAP TOP and when transporting it.

Avoid mechanical shocks. HARD DISKS are sensitive.

Do not transport a LAP TOP with a DISKETTE in the DISK DRIVE. This may ruin the DISK DRIVE and the DISKETTE.

Open the WRITE PROTECTION WINDOW of the DISKETTE

Store the DISKETTES (SERVICE SOFTWARE and OPERATING SOFTWARE) at a safe place. It may become necessary to reload the SOFTWARE to the HARD DISK.

Do not expose the DISKETTE to heat.

Do not expose the DISKETTE to a magnetic field.

2. ERROR CODE DESCRIPTION.

Note

As cause for several errors just "SOFTWARE PROBLEM" is given. In such a case something went wrong in the software for unknown reasons. This means the only thing that can be done in the field is press CLEAR and start again. It is not possible to further analyse this problem in the field. If the problem persists inform your local specialist.

ERROR CODE

The KODAK X-OMAT Multiloader 300 displays a 10 digit ERROR CODE.

For example:

S C M I P

B0 61 C4 A0 06

This CODE is build up out of 5 groups:

GROUP 1	SYSTEM TASK	**B0** hex
GROUP 2	CASSETTE TASK	**61** hex
GROUP 3	MAGAZINE TASK	**C4** hex
GROUP 4	INTERFACE TASK	**A0** hex
GROUP 5	PROCESSOR TASK	**06** hex

SERVICE CALLS

In case of a problem the OPERATOR could get the XML300 running again by pressing the CLEAR BUTTON of the OPERATOR CONTROL PANEL. However in some cases this could increase the problem. Therefore the CLEAR BUTTON is disabled for the ERROR CODES listed below.

To clear these ERROR CODES the LAP TOP has to be connected to the REAR RS232 CONNECTOR of the XML300 and the SERVICE PROGRAM has to be started. When leaving the SERVICE PROGRAM the ERROR CODE becomes cleared.

SYSTEM UNIT:

FF CES set the XML300 to the inoperative mode. FF does not become cleared automatically on leaving the SERVICE PROGRAM. To reset it select:

- OPTION CHANGE ML300 DATA
- OPTION ENABLE/DISABLE ML300

CASSETTE UNIT:

83 The CASSETTE OPENER is not in the UPPER END POSITION and the END SWITCH B15 is not actuated.

84 The CASSETTE SUCKER BAR is not in the REAR POSITION.

90 The TRAILING EDGE of the FILM was detected too early by the SENSOR B20 VACUUM OFF.

97 The TRAILING EDGE of the FILM was detected too early by the SENSOR B20 VACUUM OFF.

9B The CASSETTE SUCKER BAR is not in the REAR POSITION.

9E The CASSETTE OPENER is not in the UPPER POSITION.

A1 The CASSETTE SUCKER BAR is not in the REAR POSITION.

A4 The CASSETTE OPENER is not in the UPPER POSITION.

FF CES set the XML300 to the inoperative mode. FF does not become cleared automatically on leaving the SERVICE PROGRAM. To reset it select:

- OPTION CHANGE ML300 DATA
- OPTION ENABLE/DISABLE ML300

MAGAZINE UNIT

96 The FILMPOCKET did not reach the SELECTED MAGAZINE LEVEL in the correct time and a time-out occurred.

98 The FILMPOCKET reached the END SWITCH but not the CASSETTE LEVEL.

9B The MAGAZINE SUCKER BAR did not reach the PICK UP POSITION and a time-out occurred.

9C The FILMPOCKET did not reach the "MOVE OUT POSITION IN THE MAGAZINE" in the correct time and a time-out occurred.

A1 The MAGAZINE SUCKER BAR did not reach the REAR POSITION and a time-out occurred.

FF CES set the XML300 to the inoperative mode. FF does not become cleared automatically on leaving the SERVICE PROGRAM. To reset it select:

- OPTION CHANGE ML300 DATA
- OPTION ENABLE/DISABLE ML300

INTERFACE UNIT

C1 A FILM sticks at SENSOR B35/M_PI_B FILM IN INTERFACE BOTTOM in the FILM CHUTE.

C2 FILM LEADING EDGE not recognised in the FILM CHUTE.

C3 The FILM TRAILING EDGE is not recognised in the FILM CHUTE.

C4 The INTERFACE FLAP is not closed.

C5 The FILM RELEASE in the FILM CHUTE is not closed.

C6 The INTERFACE FLAP is not opened.

C7 The FILM RELEASE in the FILM CHUTE is still closed.

FF CES set the XML300 to the inoperative mode. FF does not become cleared automatically on leaving the SERVICE PROGRAM. To reset it select:

- OPTION CHANGE ML300 DATA
- OPTION ENABLE/DISABLE ML300

PROCESSOR

DD A FILM JAM occurred at the PROCESSOR ENTRANCE ROLLERS.

FF CES set the XML300 to the inoperative mode. FF does not become cleared automatically on leaving the SERVICE PROGRAM. To reset it select:

OPTION CHANGE ML300 DATA

OPTION ENABLE/DISABLE ML300

ADDITIONAL MESSAGES

It is not possible to access these error codes with the Lap Top.

Note

In addition to other messages so called EXCEPTION MESSAGES may be displayed. These messages are divided into three groups and displayed in english only.

1. SOFTWARE PROBLEMS

This means for unknown reasons something went wrong in the software. The proposed action is to switch off and on the XML300. If the problem persists contact your specialist.

Messages

- ex0: unknown exception
- ex1: base-task not available
- ex2: cassette task not available
- ex3: magazine-task not available
- ex4: interface-task not available
- ex5: processor-task not available
- ex6: debug-task not available
- ex10: bas. mailbox communic. -error
- ex11: cas. mailbox communic. -error
- ex12: mag. mailbox communic. -error
- ex13: int. mailbox communic. -error
- ex14: pro. mailbox communic. -error
- ex19: error does not exist

2. HARDWARE PROBLEMS

This means a hardware failure on the Main- Processor Printed Circuit Board was detected. It does not necessarily mean that a real hardware error occured therefore switch off and on the XML300. If the problem persists is it most likely that the Main Processor PCB A1 is faulty.

Messages

- ex20: static-RAM test failed
- ex21: backup-RAM test failed
- ex22: USART - test failed
- ex23: I/O - test failed
- ex24: wrong EPROM checksum
- ex27: watch-dog test failed
- ex28: display test failed
- ex29: RS232 test failed
- ex30: keypad test failed
- ex31: real-time-clock chip failure

3. Problems with software versions

This means a wrong or no software was detected during power up. In this case switch off and on the XML300. If the problem persists reload the operating software with the Lap Top.

Messages

- ex40: incompatible software versions (different software versions in the SYSTEM UNIT CASSETTE UNIT or MAGAZINE UNIT).
- ex 41: operating software not available

4. Problems during software update

A problem occurs if during the software update the Lap Top fails or the connection between Lap Top and XML300 becomes interrupted.

Message

- ex42: communication error

LED ERROR CODES

Printed Circuit Board A1 (Main Processor)

- **LED DS1 (red)**
  This LED is on while Vcc is available

- **LED DS2 (green)**
  This LED is on during the idle state and during a cycle.
  This LED is off if only the bootstrap software is running

Printed Circuit Boards A4 and A8

- **LED (red) is off**
  This may occur after power up only if a RAM-test failure is detected or the bootstrap-software is faulty.
- **LED (red) is blinking continuously**
  In this case only the bootstrap software is running. This happens during software load from the Lap Top.
- **LED (red) displays a rhythmic blinking**
  In this case a fatal error occurred. A "normal" error code will be displayed too. If the problem cannot be solved try to record the blinking hex error code and pass it on to your local specialist. The problem can then be analysed in the factory.
- For example the LED blinks as follows:
  The asterisks means the LED is on.
  * 0.5 sec pause * * * * * * * 1 sec pause * 0.5 sec pause * * * * * * * and so on
  The 2 digit hex code for this example is 17

3. ERROR CODES SYSTEM UNIT

00 ERROR CODE OF SYSTEM TASK

FUNCTION:

PROBLEM:

The system unit has no error.

B0 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL-BASE TASK ERRORS

PROBLEM:

A software communication error between SYSTEM-TASK and CASSETTE-TASK occurred.
Press CLEAR and start again.

B1 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL-BASE TASK ERRORS

PROBLEM:

A software communication error between SYSTEM-TASK and CASSETTE-TASK occurred.
Press CLEAR and start again.

B2 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL-BASE TASK ERRORS

PROBLEM:

A software communication error between SYSTEM-TASK and PROCESSOR-TASK occurred
Press CLEAR and start again.

B3 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL BASE-TASK ERRORS

PROBLEM:

A software communication error between SYSTEM-TASK and CASSETTE-TASK occurred.
Press CLEAR and start again.

B4 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL BASE-TASK ERRORS

PROBLEM:

A software communication error between SYSTEM-TASK and PROCESSOR-TASK occurred
Press CLEAR and start again.

B5 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL BASE-TASK ERRORS

PROBLEM:

A software communication error between SYSTEM-TASK and CASSETTE-TASK occurred.
Press CLEAR and start again.

B6 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL BASE-TASK ERRORS

PROBLEM:

A software communication error between SYSTEM-TASK and CASSETTE-TASK occurred.
Press CLEAR and start again.

B7 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL BASE-TASK ERRORS

PROBLEM:

A software communication error between SYSTEM-TASK and CASSETTE-TASK occurred.
Press CLEAR and start again.

B8 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL BASE-TASK ERRORS

PROBLEM:

A software communication error between SYSTEM-TASK and CASSETTE-TASK occurred.
Press CLEAR and start again.

B9 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL BASE-TASK ERRORS

PROBLEM:

A software communication error between SYSTEM-TASK and CASSETTE-TASK occurred.
Press CLEAR and start again.

C0 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

A MAILBOX communication error occurred.
Press CLEAR and start again.

D0 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS (only in software below version 3.1)

PROBLEM:

The SYSTEM-TASK received a wrong ID number. (only in SW. vers. below 3.1)

CAUSE 1:

A software problem occurred.
Press CLEAR and start again.

CAUSE 2:

The POWER SUPPLY is defective.
Check in addition the voltages on CIRCUIT BOARD A1, A3/1 and A3/2.

D2 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

A software problem occurred.
Press CLEAR and start again.

D3 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

A software problem occurred.
Press CLEAR and start again.

D4 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS (only in software below version 3.1)

PROBLEM:

A software problem occurred. (only in software version below 3.1)
Press CLEAR and start again.

D5 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

A software problem occurred.
Press CLEAR and start again.

D6 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

A software problem occurred.
Press CLEAR and start again.

DD ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERROR (only in software below version 3.1)

PROBLEM:

A film jam occurred at the PROCESSOR ENTRANCE ROLLERS. (only in SW. below 3.1)

CAUSE 1:

It is a "normal" film jam.
Pull out the PROCESSOR.
Remove the jammed FILM.

CAUSE 2:

A failure in the PROCESSOR occurred. The TRANSPORT MOTOR or the FILM DETECTOR SENSOR may be defective.
Do the PROCESSOR DIAGNOSTICS.

DE ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS (only in software below version 3.1)

PROBLEM:

There is a FILM JAM at the PROCESSOR ENTRANCE.(only in SW below 3.1)

CAUSE 1:

The FILM is mechanically held back.
Remove the mechanical obstruction.

CAUSE 2:

The PROCESSOR INPUT SENSOR is defective.
Run the PROCESSOR DIAGNOSTICS.

CAUSE 3:

The PROCESSOR DRIVE MOTOR is defective.
Run the PROCESSOR DIAGNOSTICS.

F0 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

A software problem occurred in conjunction with the LAP TOP.
Press CLEAR and start again.

F1 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

This is a HARDWARE communication problem in conjunction with the LAP TOP.

CAUSE 1:

SOFTWARE problem:
Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
CIRCUIT BOARD A1 could be defective.

F2 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

A software problem occurred in conjunction with the LAP TOP.
Press CLEAR and start again.

F3 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem in conjunction with the LAP TOP.

CAUSE 1:

SOFTWARE problem:
Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
CIRCUIT BOARD A1 could be defective,

CAUSE 3:

The LAP TOP DATA CABLE could be defective.

F4 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem in conjunction with the LAP TOP.

CAUSE 1:

SOFTWARE problem:
Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
CIRCUIT BOARD A1 could be defective,

CAUSE 3:

The LAP TOP DATA CABLE could be defective.

F5 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem in conjunction with the LAP TOP.

CAUSE 1:

SOFTWARE problem:
Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
CIRCUIT BOARD A1 could be defective,

CAUSE 3:

The LAP TOP DATA CABLE could be defective.

F6 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem in conjunction with the LAP TOP.

CAUSE 1:

SOFTWARE problem:
Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
CIRCUIT BOARD A1 could be defective,

CAUSE 3:

The LAP TOP DATA CABLE could be defective.

F7 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem in conjunction with the LAP TOP.

CAUSE 1:

SOFTWARE problem:
Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
CIRCUIT BOARD A1 could be defective.

CAUSE 3:

The LAP TOP DATA CABLE could be defective.

F8 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

A software problem occurred in conjunction with the LAP TOP.
Press CLEAR and start again.

F9 ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

A software problem occurred in conjunction with the LAP TOP.
Press CLEAR and start again.

FA ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

A software communication error occurred in conjunction with the LAP TOP.
Press CLEAR and start again.

FD ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem in conjunction with the LAP TOP.

CAUSE 1:

SOFTWARE problem.
Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
CIRCUIT BOARD A1 could be defective.

CAUSE 3:

The LAP TOP DATA CABLE could be defective.

FE ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem in conjunction with the LAP TOP.

CAUSE 1:

SOFTWARE problem:
Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
CIRCUIT BOARD A1 could be defective.

CAUSE 3:

The LAP TOP DATA CABLE could be defective.

FF ERROR CODE OF SYSTEM TASK

FUNCTION: INTERNAL SYSTEM ERRORS

PROBLEM:

CES set the ML300 to the inoperative mode.

4. ERROR CODES CASSETTE UNIT

00 ERROR CODE OF CASSETTE TASK

FUNCTION:

PROBLEM:

The cassette task has no error.

61 ERROR CODE OF CASSETTE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

A software communication problem occurred.
Press CLEAR and start again.

62 ERROR CODE OF CASSETTE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

For LOAD ONLY the inserted CASSETTE should be empty, but it was not. This is just a WARNING MESSAGE.

63 ERROR CODE OF CASSETTE TASK

FUNCTION: ERRORS DURING CYCLE.

PROBLEM:

A time-out in the PROCESSOR occurred. The CASSETTE cannot be unloaded.

CAUSE:

The PROCESSOR has a malfunction. Do the PROCESSOR DIAGNOSTICS.

64 ERROR CODE OF CASSETTE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

The CASSETTE is empty. A time-out occurred when the CASSETTE OPENER was moving down to the “CASSETTE EMPTY = NOT CLOSED POSITION”.

CAUSE 1:

MOTOR M5/C_OP CASSETTE OPENING does not run.
-Enter the SERVICE MODE.
-Start the CASSETTE OPENER MOTOR in forward direction.
-Trace the signal M_C_OP_F on PCB A8 sheet 5 and signal OPEN on CIRCUIT BOARD A8 sheet 5 and A9.
-Replace the faulty components.

CAUSE 2:

The ODOMETER WHEEL is misadjusted.
Do the adjustment.

CAUSE 3:

ODOMETER A10/3 is defective.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE OPENER forward/backward.
-Trace the output signal of A10/3 on CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

CAUSE 4:

There is a mechanical defect.

65 ERROR CODE OF CASSETTE TASK

FUNCTION: ERRORS DURING CYCLE.

PROBLEM:

A time-out occurred and the CASSETTE is not loaded.

CAUSE:

This problem is caused by a malfunction of the MAGAZINE UNIT. Check the ERROR CODE of the MAGAZINE UNIT.

66 ERROR CODE OF CASSETTE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

A software communication problem occurred during SERIAL UNLOAD and the INTERFACE FLAP is not open.
Press CLEAR and start again.

67 ERROR CODE OF CASSETTE TASK

FUNCTION: ERRORS DURING CYCLE.

PROBLEM:

There is no MAGAZINE available for SERIAL UNLOAD.
Press CLEAR .
Insert the SERIAL UNLOAD MAGAZINE.
Start again.

68 ERROR CODE OF CASSETTE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

A wrong cassette size is entered for SERIAL UNLOAD.

Press CLEAR.
Select the correct CASSETTE.
Start again.

69 ERROR CODE OF CASSETTE TASK

FUNCTION: ERRORS DURING CYCLE.

PROBLEM:

A time-out occurred and the MAGAZINES are not closed.

CAUSE 1:

This problem is caused by a malfunction in the MAGAZINE UNIT. Check the ERROR CODE of the MAGAZINE UNIT.

CAUSE 2:

In case of a software problem:
Press CLEAR.
Select the correct CASSETTE.
Start again.

6A ERROR CODE OF CASSETTE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

The CASSETTE OPENER did not reach the UPPER END SWITCH B15 within 2 seconds after the CASSETTE OPENER MOTOR was started in the BLOW POSITION.

CAUSE 1:

The SENSOR B15/C_OP_EO CASSETTE OPENER END SWITCH OPEN is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B15.
-Trace its output signal on CIRCUIT BOARD A8 sheet 1.
-Replace the faulty component.

CAUSE 2:

MOTOR M5/C_OP CASSETTE OPENING is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE OPENING.
-Trace signal M_C_OP_F on CIRCUIT BOARD A8 sheet 5 through CIRCUIT BOARD A9.
-Replace the faulty component.

CAUSE 3:

-There is a mechanical defect.

6B ERROR CODE OF CASSETTE TASK

FUNCTION: ERRORS DURING CYCLE.

PROBLEM:

A time-out occurred and the MAGAZINE SUCKER BAR stayed in the CASSETTE.

CAUSE 1:

This problem is caused by a malfunction of the MAGAZINE UNIT. Check the ERROR CODE of the MAGAZINE UNIT.

CAUSE 2:

A software problem occurred.
Press CLEAR and start again.

6C ERROR CODE OF CASSETTE TASK

FUNCTION: ERRORS DURING CYCLE.

PROBLEM:

The INPUT FLAP is not open and a time-out occurred.

CAUSE 1:

SENSOR B3/C_IF_EO CASSETTE INPUT FLAP END SWITCH OPEN is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B3.
-Trace its output signal on CIRCUIT BOARD A8 sheet 1.
-Replace the faulty component.

CAUSE 2:

MOTOR M1 INPUT FLAP is not running.
-Enter the SERVICE MODE.
-Start MOTOR M1.
-Trace signal M_C_IF on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 3:

115 VAC are missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.
-Replace the faulty component.

CAUSE 4:

There is a mechanical defect.

6D ERROR CODE OF CASSETTE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

The MAGAZINE SUCKER BAR stayed inside the CASSETTE.

CAUSE 1:

This problem is caused by a malfunction of the MAGAZINE UNIT. Check the ERROR CODE of the MAGAZINE UNIT.

CAUSE 2:

A software problem occurred.
Press CLEAR and start again.

6E ERROR CODE OF CASSETTE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

A time-out occurred and the MAGAZINES are open.

CAUSE 1:

This problem is caused by a malfunction of the MAGAZINE UNIT. Check the ERROR CODE of the MAGAZINE UNIT.

CAUSE 2:

A software problem occurred.
Press CLEAR and start again.

6F ERROR CODE OF CASSETTE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

A time-out occurred and the MAGAZINE SUCKER BAR is in the CASSETTE at the wrong time.

CAUSE 1:

This problem is caused by a malfunction of the MAGAZINE UNIT. Check the ERROR CODE of the MAGAZINE UNIT.

CAUSE 2:

A software problem occurred. Press CLEAR and start again.

70 ERROR CODE OF CASSETTE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

The CASSETTE UNIT is not in HOME POSITION.

CAUSE:

The status of one of the following SENSORS is wrong.

-Start the SENSOR TEST and check the status of the following SENSORS:

- B3/C_IF_EO . . . . . CASSETTE INPUT FLAP END SWITCH OPEN . . . . . ON
- B4/C_IF_EC . . . . . CASSETTE INPUT FLAP END SWITCH OPEN . . . . . OFF
- B5/C_IN_EL . . . . . CASSETTE IN END SWITCH LEFT. . . . . OFF
- B6/C_IN_EL . . . . . CASSETTE IN END SWITCH MIDDLE . . . . . OFF
- B7/C_IN_ER . . . . . CASSETTE IN END SWITCH RIGHT . . . . . OFF
- B9/C_CE_EC . . . . . CENTERING BARS END SWITCH CLOSED . . . . . OFF
- B10/C_CE_EO . . . . . CENTERING BARS END SWITCH OPEN. . . . . ON
- B11/C_CE_CL . . . . . CASSETTE CENTERED LEFT. . . . . OFF
- B12/C_CE_CR . . . . . CASSETTE CENTERED RIGHT. . . . . OFF

- B15/C_OPEO . . . . . CASSETTE OPENER END SWITCH OPEN . . . . . ON
- B17/C_PU_EF . . . . . FILM PICK UP END SWITCH FRONT. . . . . OFF
- B18/C_PU_ER . . . . . FILM PICK UP END SWITCH REAR. . . . . ON
- B20/C_PU_VO . . . . . VACUUM OFF . . . . . OFF
- B23/C_TCI . . . . . TOP COVER INTERLOCK . . . . . ON

NOTE
Some of these SENSORS are very sensitive to room light. If the covers are off, a RESET may be started automatically. Therefore make sure that no bright light reaches the SENSORS.

72 ERROR CODE OF CASSETTE TASK

FUNCTION: FRONT DOOR (only in software below version 3.1)

PROBLEM:

The FRONT DOOR is open and should be closed. (only in SW below 3.1)

CAUSE 1:

The FRONT DOOR is not properly closed.

CAUSE 2:

The FRONT DOOR SWITCH B1/C_FD is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SWITCH B1.
-Trace its output signal on CIRCUIT BOARD A8 sheet 2.
-Replace the faulty component.

73 ERROR CODE OF CASSETTE TASK

FUNCTION: FRONT DOOR

PROBLEM:

The FRONT DOOR is open and should be closed.

CAUSE 1:

The FRONT DOOR is really open.

CAUSE 2:

SENSOR B1/C_FD FRONT DOOR SWITCH is defective.
Enter the SERVICE MODE.
Start the SENSOR TEST.
Manually actuate SENSOR B1.
Trace its output signal on CIRCUIT BOARD A8 sheet 2.

74 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE FEED IN

PROBLEM:

The CASSETTE is detected by SENSOR “CASSETTE REGISTRATION” (PCB A8 Sheet 2) and the CASSETTE TRANSPORT MOTOR is turned on. Within the next 5 seconds

the CASSETTE did not actuate at least 2 of 3 SENSORS: END SWITCH LEFT, CASS. END SWITCH MIDDLE, CASS. END SWITCH RIGHT (PCB A8 Sheet 2) and a time-out occurred.

NOTE

The additional reflective SENSOR B24/C_IN_R2, installed with modification 30, checks within 1.2 seconds after SENSOR B2 was actuated, if its infrared beam is interrupted by a CASSETTE. If it is not interrupted, the CASSETTE TRANSPORT MOTOR is switched off and the green READY LAMP is switched on again.

CAUSE 1:

SENSOR B24/C_IN_R2 is defective.

-Enter the SERVICE MODE

-Start the SENSOR TEST

-Manually interrupt SENSOR B24

-Trace its output signal on CIRCUIT BOARD A8 Sheet 3

-Replace the faulty component

CAUSE 2:

The OPERATOR tripped the SENSOR "CASSETTE REGISTRATION" by hand. This is only possible if SENSOR B24 is not installed, or not activated (Switch S2 PCB A8 not up).

CAUSE 3:

The CASSETTE was pulled out upwards instead of straight or slightly downwards. In this case SENSOR B2/C_IN_R is actuated and the next cycle is started. This is only possible if SENSOR B24 is not installed, or not activated (Switch S2 PCB A8 not up).

-Explain it to the OPERATOR.

CAUSE 4:

The SENSOR CASSETTE REGISTRATION B2/C_IN_R is adjusted too low. In this case a curved CASSETTE can trigger SENSOR B2 again when it is pulled out. -Adjust SENSOR B2. The SENSOR should be actuated after moving the CASSETTE ENTRANCE ACTUATOR down for approximately 0.5 to 1mm.

CAUSE 5:

The SENSOR B5/C_IN_EL or B6/C_IN_EM or B7/C_IN_ER is too strong (actuator friction too high or spring tension too high) and is not actuated by a small CASSETTE (18x24M).

-Install modification 26.

CAUSE 6:

The friction of the CASSETTE TRANSPORT ROLLERS is too low. In this case the CASSETTE is not transported to the 3 CASSETTE END SWITCHES B5/B6/B7 or the CASSETTE is not pressed hard enough against the END SWITCHES.

-Clean the CASSETTE TRANSPORT ROLLERS with water only.

CAUSE 7:

The 2 SUPPORTING BOLTS, located between the long CASSETTE TRANSPORT ROLLER and the CASSETTE END STOP, are too high.

-Remove the WASHER under the BOLT.

CAUSE 8:

The ML300 is equipped with the old style PCB A9 (recognisable at the 2 big coils) and the PARAMETER DISABLE OPENER is set to 00 instead to AA. The POWER REGULATOR on this PCB is too weak to drive the CASSETTE INPUT MOTOR M2/C_IN and the CASSETTE OPENING MOTOR M5/C_OP at the same time. The cassette transport may be slowed down or even stopped. In this case a time-out may occur.

-Set the PARAMETER DISABLE OPENER to AA.

CAUSE 9:

The DRIVE BELT tension for the CASSETTE TRANSPORT ROLLERS is too high. The cassette transport may be slowed down or even stopped. In this case a time-out may occur.

-Decrease the DRIVE BELT tension.

CAUSE 10:

CASSETTE at the End Stop but not detected by at least 2 of the 3 END SWITCHES.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate the 3 SENSORS B5/C_IN_EL, B6/E_IN_EM and B7/C_IN_ER.
-Trace their output signals on CIRCUIT BOARD A8 Sheet 2.
-Replace the faulty component.

CAUSE 11:

MOTOR M2/C_IN CASSETTE INPUT is not running.
-Enter the SERVICE MODE.
-Start the MOTOR CASSETTE INPUT (forward).
-Trace the signal M_C_IN_F from CIRCUIT BOARD A8 Sheet 5 to A9.
-Replace the faulty component.

CAUSE 12:

The HOLDING FINGER was not in the rear position.

75 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE CENTRING

PROBLEM:

The CENTRING BARS reached their innermost position and SENSOR B9/C_CE_EC CENTRING BARS CLOSED is actuated.

CAUSE 1:

A 18x24 CASSETTE is fed in wrong.
-Explain it to the OPERATOR.

CAUSE 2:

SENSOR B9/C_CE_EC is in the wrong position. This SENSOR must not be actuated when a CASSETTE 18x24 is centred.
-Adjust the position of SENSOR B9. It must not be actuated when a
CASSETTE 18x24 is centred.

CAUSE 3:

115 V missing at BOARD A8
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between Pin 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised
when TOP COVER and FRONT DOOR are closed.

CAUSE 4:

MOTOR M4/C_CE CASSETTE CENTRING is not running.
-Enter the SERVICE MODE.
-Start the MOTOR CENTRING CASSETTE.
-Trace the signal M_C_CE_C on CIRCUIT BOARD A8 Sheet 7.
-Replace the faulty component.

CAUSE 5:

SENSOR B9/C_CE_EC CASSETTE CENTRING BARS CLOSED is defective.
-Start the SENSOR TEST.
-Manually operate SENSOR B9.

-Trace it's output signal on CIRCUIT BOARD A8 Sheet 2.
-Replace the faulty component.

CAUSE 5:

SENSOR B9 is blocked by dirt in the actuated position.
-Clean the CASSETTE AREA.

76 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE CENTRING

PROBLEM:

SENSOR B11/C_CE_CL CASSETTE CENTRED LEFT and B12/C_CE_CR CASSETTE CENTRED RIGHT had not been actuated within 3 seconds after the start of the
CENTRING MOTOR.

CAUSE 1:

The friction between CASSETTE TRANSPORT ROLLERS and CASSETTE is too high
and the CASSETTE cannot be moved to the centre.
-Powder the last 3 CASSETTE TRANSPORT ROLLERS with TALCUM POWDER.

CAUSE 2:

The CENTERING BARS do not move to the centre.
-Check if the DRIVE GEAR at the CENTERING MOTOR is broken. Replace it with the new white DRIVE GEAR PN 9221850.

CAUSE 3:

The CENTERING BARS do not move to the centre.
-If the TIMING BELT tension is too high, reduce the tension.

CAUSE 4:

The wires to SENSOR B11/C_CE_CL or SENSOR B12/C_CE_CR are broken.
-If modification 22 is not installed, install it.
-If the modification 22 is installed, replace the faulty WIRE HARNESS.

CAUSE 5:

SENSOR B11/C_CE_CL CASSETTE CENTRED LEFT or SENSOR B12/C_CE_CR CASSETTE CENTRED RIGHT is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually operate both SENSORS. (They are connected in line)
-Trace their output on CIRCUIT BOARD A8 Sheet 2.
-Replace the faulty component.

CAUSE 6:

MOTOR M4/C_CE CASSETTE CENTRING is not running.
-Enter the SERVICE MODE
-Start the MOTOR CENTRING CASSETTE.
-Trace the signal M_C_CE_C on CIRCUIT BOARD A8 Sheet 7.
-Replace the faulty component.

CAUSE 7:

The CASSETTE is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 8:

115 VAC missing at BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between Pin 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWERS SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 9:

There is a mechanical defect.

77 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE CENTRING

PROBLEM:

The CASSETTE CENTRING BARS did not reach the open position and a time-out occurred.

CAUSE 1:

The CENTERING BARS do not move to the centre.
-Check if the DRIVE GEAR at the CENTERING MOTOR is broken. Replace it with the new white DRIVE GEAR PN 9221850.

CAUSE 2:

The CENTERING BARS do not move to the open position.
-If the TIMING BELT tension is too high, reduce the tension.

CAUSE 3:

SENSOR B10/C_CE_EO CENTERING BARS END SWITCH OPEN is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually operate SENSORS B10.
-Trace its output on CIRCUIT BOARD A8 Sheet 2.
-Replace the faulty component.

CAUSE 4:

MOTOR M4/C_CE CASSETTE CENTRING is not running.
-Enter the SERVICE MODE
-Start the MOTOR CENTRING CASSETTE.
-Trace the signal M_C_CE_C on CIRCUIT BOARD A8 Sheet 7.
-Replace the faulty component.

CAUSE 5:

115 VAC missing at BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between Pin 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWERS SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 6:

There is a mechanical defect.

78 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE WIDTH DETECTION

PROBLEM:

The INPUT FLAP is open.

CAUSE

In this case something went wrong in the software. Restart the SYSTEM.

79 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE WIDTH DETECTION

PROBLEM:

The INPUT FLAP was not closed within 2 seconds after the CASSETTE actuated at least 2 of the 3 CASSETTE END SWITCHES (LEFT, MIDDLE, RIGHT) and a time-out occurred.

CAUSE 1:

115 VAC missing at BOARD A8
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between Pin 1 and 4.
-If the Voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when TOP COVER and FRONT DOOR are closed.

CAUSE 2:

MOTOR M1/C_IF INPUT FLAP is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE INPUT FLAP.
-Trace the signal M_C_IF on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 3:

SENSOR B4/C_IF_EC CASSETTE INPUT FLAP CLOSED is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B3.
-Trace its output signal on CIRCUIT BOARD A8 sheet 1.
-Replace the faulty component.

CAUSE 4

The INPUT FLAP is mechanically blocked.
-Remove the obstruction.
-Check if the INPUT FLAP is bend.

7A ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE WIDTH DETECTION

PROBLEM:

Not enough HOLDING FINGER COUNT PULSES when the HOLDING FINGER moves in to detect the CASSETTE WIDTH.

CAUSE 1:

115 VAC is missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the Voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 2:

MOTOR M3/C_HF HOLDING FINGER is defective.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE HOLDING FINGER.
-Trace the signal M_C_HF_F on CIRCUIT BOARD A8 (sheet 7).
-Replace the faulty component.

CAUSE 3:

The CASSETTE is put the wrong way in for example 24x30.
-Explain it to the operator.

CAUSE 4:

ODOMETER A10/1 is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually move the HOLDING FINGER forward and backward.
-Trace the output signals on CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

CAUSE 5:

The ODOMETER PCB A10/1 is misadjusted.
-Adjust the ODOMETER.

CAUSE 6:

There is a mechanical interference.
-Check the WASHERS guiding the HOLDING FINGER ASSEMBLY. Some may have burrs. Take out the WASHERS and file off the burrs.

CAUSE 7:

The tension of the HOLDING FINGER TIMING BELT is too high.
-Reduce the TIMING BELT TENSION.

7B ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE WIDTH DETECTION

PROBLEM:

Failure in CASSETTE WIDTH DETECTION. A time-out occurred (3 seconds after CASSETTE centred) because HOLDING FINGER COUNT PULSES are still generated.

CAUSE 1:

One of the 3 CASSETTE IN END SWITCHES (B5/C_IN_EL, B6/C_IN_M or B7/C_IN_ER) is defective. In this case the HOLDING FINGER MOTOR is not stopped because the STOP CONDITION for this motor is NO COUNT PULSES and ALL 3 CASSETTE IN END SWITCHES ACTUATED.

-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate the 3 CASSETTE IN END SWITCHES (B5, B6, B7).
-Trace their output signals on CIRCUIT BOARD A8 (sheet 2).
-Replace the faulty component.

CAUSE 2:

MOTOR M3/C_HF HOLDING FINGER is defective.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE HOLDING FINGER.
-Trace the signal M_C_HF_F on CIRCUIT BOARD A8 (sheet 7).
-Replace the faulty component.

CAUSE 3:

ODOMETER A 10/1 is defective.
-Enter the SERVICE MODE
-Start the SENSOR TEST
-Manually move the HOLDING FINGER forward and backward.
-Trace the output signals on CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

CAUSE 4:

115 VAC is missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the Voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 5:

There is a mechanical defect.

7C ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE WIDTH DETECTION

PROBLEM:

The HOLDING FINGER did not reach its REAR END POSITION. When the FUNCTION CASSETTE WIDTH is started, the HOLDING FINGER is first moved to REAR POSITION to make sure that the correct amount of pulses is counted.

CAUSE 1:

115 VAC missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at the CONNECTOR A8X49 between PIN 1 and 4.
-If the voltage is missing check the following:
-Fuse 1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. Relay K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 2:

MOTOR M3/C_HF HOLDING FINGER is not running.
-Enter the SERVICE MODE.

-Start the MOTOR HOLDING FINGER forward and backward.
-Trace the signals M_C_HF_F (forward) and M_C_HF_R (reverse) on the CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 3:

ODOMETER Circuit Board PCB A10/1 defective
-Enter the SERVICE MODE
-Start Motor Holding Finger forward/backward.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Trace the signals COUNTING and DIRECTION on the CIRCUIT BOARD A8 sheet 1.
-Replace the faulty component.

CAUSE 4:

There is a mechanical defect.

7D ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE WIDTH DETECTION

PROBLEM: CASSETTE 78 + 7A

The INPUT FLAP is open and not enough HOLDING FINGER COUNT PULSES when the HOLDING FINGER moves in to detect the CASSETTE WIDTH.

CAUSE 1:

INPUT FLAP open. In this case something went wrong in the software. Restart the system.

CAUSE 2:

115 VAC is missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the Voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 3:

MOTOR M3/C_HF HOLDING FINGER is defective.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE HOLDING FINGER.
-Trace the signal M_C_HF_F on CIRCUIT BOARD A8 (sheet 7).
-Replace the faulty component.

CAUSE 4:

The CASSETTE is put the wrong way in.

CAUSE 5:

ODOMETER A10/1 is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually move the HOLDING FINGER forward and backward.
-Trace the output signals of A10/1 on CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.

-Replace the faulty component.

7E ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE WIDTH DETECTION

PROBLEM: CASSETTE 78 + 7B

The INPUT FLAP is open and a Failure in the CASSETTE WIDTH DETECTION occurred. A time-out occurred (3 seconds after CASSETTE entered) because HOLDING FINGER COUNT PULSES are still generated.

CAUSE 1:

INPUT FLAP is open.
In this case something went wrong in the software. Restart the system.

CAUSE 2:

115 VAC is missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the Voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 3:

MOTOR M3/C_HF HOLDING FINGER is defective.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE HOLDING FINGER.
-Trace the signal M_C_HF ON CIRCUIT BOARD A8 (sheet 7).
-Replace the faulty component.

CAUSE 4:

ODOMETER A 10/1 is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually move the HOLDING FINGER forward and backward.
-Trace the output signals on CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

CAUSE 5:

The CASSETTE is mechanically blocked and cannot reach the CASSETTE END SWITCHES.

7F ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE WIDTH DETECTION

PROBLEM: CASSETTE 78 + 7C

The INPUT FLAP is open and the Holding Finger did not reach its FRONT END POSITION.

CAUSE 1:

The INPUT FLAP is open.
In this case something went wrong in the Software. Restart the system.

CAUSE 2:

115 VAC missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE 1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 3:

MOTOR M3/C_HF HOLDING FINGER is not running.
-Enter the SERVICE MODE.
-Start MOTOR HOLDING FINGER forward and backward.
-Trace the signals M_C_HF_F (forward) and M_C_HF_R (reverse) on the CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 4:

ODOMETER A10/1 is defective.
-Enter the SERVICE MODE.
-Start MOTOR HOLDING FINGER forward/backward.
-Trace the output signals of A1/1 on CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

CAUSE 5:

There is a mechanical defect.

80 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE WIDTH DETECTION

PROBLEM: CASSETTE 79 + 7A

The INPUT FLAP was not closed within 2 seconds after the CASSETTE MIDDLE, RIGHT) and a time-out occurred and not enough HOLDING FINGER COUNT PULSES when the HOLDING FINGER moves in to detect the CASSETTE WIDTH.

CAUSE 1:

115 VAC missing at BOARD A8
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the Voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY:
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 2:

MOTOR M1/C_IF INPUT FLAP is not running.
-Enter the SERVICE MODE.
-MOTOR CASSETTE INPUT FLOP.
-Trace the signal M_C_IF on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 3:

SENSOR B4/C_IF_EC CASSETTE INPUT FLAP CLOSED is defective.

-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B3.
-Trace its output signal on CIRCUIT BOARD A8 sheet 1.
-Replace the faulty component.

CAUSE 4:

Mechanical defect.

CAUSE 5:

MOTOR M3/C_HF HOLDING FINGER is defective.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE HOLDING FINGER.
-Trace the signal M_C_HF_F on CIRCUIT BOARD A8 (sheet 7).
-Replace the faulty component.

CAUSE 6:

The CASSETTE is put the wrong way in.

CAUSE 7:

ODOMETER A10/1 is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually move the HOLDING FINGER forward and backward.
-Trace the output signals on CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

81 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE WIDTH DETECTION

PROBLEM: CASSETTE 79 + 7B

The INPUT FLAP was not closed within 2 seconds after the CASSETTE actuated at least 2 of the 3 CASSETTE END SWITCHES (LEFT, MIDDLE, RIGHT) and a time-out occurred. And a failure in CASSETTE WIDTH DETECTION. A time-out occurred (3 seconds after CASSETTE centred) because HOLDING FINGER COUNT PULSES are still generated.

CAUSE 1:

115 VAC missing at BOARD A8
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the Voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 2:

MOTOR M1/C_IF INPUT FLAP is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE INPUT FLAP.
-Trace the signal MC_C_IF on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 3:

Sensor B4/C_IF_EC CASSETTE INPUT FLAP CLOSED is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B4.
-Trace its output signal on CIRCUIT BOARD A8 sheet 1.
-Replace the faulty component.

CAUSE 4:

Mechanical defect.

CAUSE 5

MOTOR M3/C_HF HOLDING FINGER is defective.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE HOLDING FINGER.
-Trace the signal M_C_HF_F on CIRCUIT BOARD A8 (sheet 7).
-Replace the faulty component.

CAUSE 6:

ODOMETER A10/1 is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually move the HOLDING FINGER forward and backward.
-Trace the output signals on CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

CAUSE 7:

The CASSETTE is mechanically blocked and cannot reach the CASSETTE END SWITCHES

82 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE WIDTH DETECTION

PROBLEM: CASSETTE 79 + 7C

The INPUT FLAP was not closed within 2 seconds after the CASSETTE actuated at least 2 of the 3 CASSETTE END SWITCHES (LEFT, MIDDLE, RIGHT) a time-out occurred and the HOLDING FINGER did not reach its FRONT END POSITION.

CAUSE 1:

115 VAC missing at BOARD A8
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the Voltage is missing check the following:
-Fuse F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when TOP COVER and FRONT DOOR are closed.

CAUSE 2:

MOTOR M1/C_IF INPUT FLAP is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE FLAP.
-Trace the signal M_C_IF on CIRCUIT BOARD A8 sheet 7.

-Replace the faulty component.

CAUSE 3:

SENSOR B4/C_IF_EC CASSETTE INPUT FLAP CLOSED is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B4.
-TRACE its output signal on CIRCUIT BOARD A8 sheet 1.
-Replace the faulty component.

CAUSE 4:

There is a mechanical defect.

CAUSE 5:

MOTOR M3/C_HF HOLDING FINGER is not running.
-Enter the SERVICE MODE.
-Start the MOTOR HOLDING FINGER forward and backward.
-Trace the Signals M_C_HF_F (forward) and M_C_HF_R (reverse) on the CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 6:

ODOMETER CIRCUIT BOARD A10/1 is defective.
-Enter the SERVICE MODE.
-Start MOTOR HOLDING FINGER forward/backward.
-Trace the output signals of A10/1 on CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

83 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE OPENING.

PROBLEM:

The CASSETTE OPENER is not in the UPPER END POSITION and the END SWITCH B15 is not actuated. This problem is detected before the start of FUNCTION CASSETTE OPENING.

CAUSE 1:

The SENSOR B15/C_OP_EO CASSETTE OPENER END SWITCH OPEN is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B15.
-Trace its output signal on CIRCUIT BOARD A8 sheet 1.
-Replace the faulty component.

CAUSE 2:

The CASSETTE OPENER MECHANISM is in the wrong position.

84 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE OPENING

PROBLEM:

The CASSETTE SUCKER BAR is not in the rear position.

CAUSE 1:

The CASSETTE SUCKER BAR is in the wrong position.

CAUSE 2:

SENSOR B18/C_PU_ER FILM PICK UP REAR does not detect that the CASSETTE SUCKER BAR CARRIAGE is in the rear position.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually move the CASSETTE SUCKER BAR CARRIAGE to the rear position.
-Trace the output signal from Sensor B18/C_PU_ER on the CIRCUIT BOARD A8 sheet 3.
-Replace the faulty component.

CAUSE 3:

There is a mechanical defect.

85 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE OPENING

PROBLEM:

The CASSETTE OPENER did not reach its BOTTOM POSITION within 2 seconds after the CASSETTE OPENER MOTOR is started and a time-out occurred.

CAUSE 1:

The OPENER MECHANISM is blocked mechanically.
-It is most likely that the STOP PIN is too close to the STOP BOLT for OPENER DOWN.
-Adjust the CASSETTE OPENER.

CAUSE 2:

SENSOR B15/C_OP_EO CASSETTE OPENER END SWITCH OPEN is misadjusted.
-Adjust the CASSETTE OPENER.

CAUSE 3:

MOTOR M5/OP CASSETTE does not move.
-Start the COMPONENT TEST and start the CASSETTE OPENER MOTOR in reverse direction.
-Trace the signal M_C_OP_F on PCB A8 sheet 5 and signal CLOSE on PCB A8 sheet 5 and PCB A9.
-Replace the faulty components.

CAUSE 4:

ODOMETER CIRCUIT BOARD A10/3 is defective.
-Enter the SERVICE MOTOR.
-Start MOTOR CASSETTE OPENER forward/backward.
-Trace the output signals of A10/3 on CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

86 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE OPENING.

PROBLEM:

The CASSETTE OPENER did not reach the UPPER END SWITCH B15 within 2 seconds after the CASSETTE OPENER MOTOR was started in the BLOW POSITION.

CAUSE 1:

The SENSOR B15/C_OP_EO CASSETTE OPENER END SWITCH OPEN is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B15.
-Trace its output signal on CIRCUIT BOARD A8 sheet 1.
-Replace the faulty component.

CAUSE 2:

MOTOR M5/C_OP CASSETTE OPENING is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE OPENING.
-Trace signal M_C_OP_F on CIRCUIT BOARD A8 sheet 5 through CIRCUIT BOARD A9
-Replace the faulty component.

CAUSE 3:

ODOMETER CIRCUIT BOARD A10/3 defective.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE OPENER forward/backward.
-Trace the output signals of A10/3 on CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

CAUSE 4:

There is a mechanical defect.

87 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE OPENING

PROBLEM:

The CASSETTE OPENER did not reach the BLOW POSITION within 1.5 seconds after the CASSETTE OPENER MOTOR was started to move the OPENER from the BOTTOM POSITION to the BLOW POSITION.

CAUSE 1:

MOTOR M5/C_OP CASSETTE OPENING is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE OPENING.
-Trace signal M_C_OP_F on CIRCUIT BOARD A8 sheet 5 through CIRCUIT BOARD A9
-Replace the faulty component.

CAUSE 2

ODOMETER A10/3 is defective.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE OPENER forward/backward.

-Trace the output signals of A10/3 on CIRCUIT BOARD A8 sheet 1.

NOTE
To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

CAUSE 3:
There is a mechanical defect.

88 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE OPENING

PROBLEM:
The CASSETTE OPENER reached the UPPER POSITION but the CASSETTE is not opened.

CAUSE 1:
The CASSETTE LATCH is misadjusted or defective and the OPENER SHOVEL slides out of the LATCH.
-Adjust the LATCH.
-If an adjustment is not possible replace the CASSETTE.

CAUSE 2:
The CASSETTE FRONT PLATES rub against each other, especially 18x24M.
-Replace the CASSETTE.

CAUSE 3:
The CASSETTE is fed in the wrong way (upside down or hinge-side first).

CAUSE 5:
SENSOR B16/C_OP_RO is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B16.
-Trace its output signal on CIRCUIT BOARD A8 sheet 3.
-Replace the faulty component.

CAUSE 5:
SOLENOID Y4/C_OP CASSETTE OPENER does not work.
-Enter the SERVICE MODE.
-Turn on the CASSETTE OPENER SOLENOID.
-Trace the Signal Y_C_OP on CIRCUIT BOARD A8 sheet 6.
-Replace the faulty component.

CAUSE 6:
The wires to the OPENER SOLENOID Y4 are broken.
-If modification 26 is not installed, install it.
-If modification 26 is installed, just replace the faulty WIRE HARNESS.

CAUSE 7:
There is a mechanical defect. For example the OPENER CLAWS are damaged.

CAUSE 8:
An empty CASSETTE usually 35x43 is not opened, due to the vacuum between both screens.
-Use LETRALINE TAPE.

CAUSE 9:

The OPENER SHOVEL is stopped by extensive CASSETTE LATCH BURR.
-File off the burr or replace the CASSETTE.

89 ERROR CODE OF CASSETTE TASK

FUNCTION: MOVE SUCKER BAR TO REAR POSITION

PROBLEM:

The CASSETTE SUCKER BAR CARRIAGE did not reach its rear position during a RESET.

CAUSE 1:

SENSOR B18/C_PU_ER FILM PICK UP REAR is defective.
-Enter the SERVICE MODE.
-Manually actuate SENSOR B18.

NOTE

Check that the MIRROR is o.k.
-Trace its output signal on CIRCUIT BOARD A8 sheet 3.
-Replace the faulty component.

CAUSE 2:

115 VA missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between Pin 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 3:

MOTOR M6/C_PU CASSETTE FILM PICK UP is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE FILM PICK UP backwards.
-Trace the signal M_PU_R on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

8A ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE FILM PICK UP

PROBLEM:

This problem occurred during LOAD ONLY. The CASSETTE SUCKER BAR is in the CASSETTE to pick up the FILM, however the SUCKER BAR is not tilted.

CAUSE 1:

SOLENOID Y7/C_PU TILTING SUCKER BAR is not working.
-Enter the SERVICE MODE.
-Turn on the SOLENOID TILTING CASSETTE SUCKER BAR.
-Trace the signal Y_C_PU on CIRCUIT BOARD A8 sheet 6.
-Replace the faulty component.

NOTE

Check for broken wires to the SOLENOID Y7 . If modification 18 is not installed, install it.

CAUSE 2:

SENSOR B19/C_PU_T SUCKER BAR TILT is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B19.
-Trace its output signal on CIRCUIT BOARD A8 sheet 3.
-Replace the faulty component.

NOTE

Check for broken wires to the SOLENOID Y7 . If modification 18 is not installed, install it. It is possible too that the SENSOR ACTUATOR of B19 is blocked by the ACTUATING CURVE. Check for ease of movement of the actuator lever.

8B ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE FILM PICK UP

PROBLEM:

This problem occurred during LOAD ONLY. The CASSETTE SUCKER BAR is pulled out of the CASSETTE but not tilted back.

CAUSE 1:

There is no FILM in the CASSETTE.
-Explain the operator that he has to press LOAD ONLY first, when using an empty CASSETTE.

CAUSE 2:

The FILM sticks to the UPPER SCREEN.
-Check that the BLOW PIPE ASSEMBLY rests correctly on the CASSETTE LID.
-Check that air is blown through the BLOW PIPES.
-Check the BLOW PIPE POSITION.
-Increase value of PARAMETER BLOW TIME.
-Use LETRALINE.

CAUSE 3:

The SUCKER BAR is too far inside the CASSETTE and cannot tilt back, even when a FILM is on the TUBE SIDE SCREEN. This problem especially occurs when the CASSETTES are excessively curved.
-Adjust the position of the CASSETTE SUCKER BAR (18+1mm away from the leading edge).

CAUSE 4:

SOLENOID Y7/C_PU TILTING SUCKER BAR is blocked or its SPRING is defective.

CAUSE 5:

SENSOR B19/C_PU_T SUCKER BAR TILT is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B19.
-Trace its output signal on CIRCUIT BOARD A8 sheet 3.
-Replace the faulty component.

8C ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE FILM PICK UP

PROBLEM:

This problem occurred during LOAD ONLY. The CASSETTE SUCKER BAR CARRIAGE did not reach the FRONT POSITION to pick up a FILM from the CASSETTE.

CAUSE 1:

115 VAC missing at CIRCUIT BOARD A8.

-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.

-If the voltage is missing check the following:

-FUSE F1 in the POWER SUPPLY:

-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 2:

MOTOR M6/C_PU CASSETTE FILM PICK UP is not running.

-Enter the SERVICE MODE.

-Start MOTOR CASSETTE FILM PICK UP forward.

-Trace the signal M_PU_F on CIRCUIT BOARD A8 sheet 7.

-Replace the faulty component.

CAUSE 3:

SENSOR B17/C_PU_EF FILM PICK UP FRONT is defective.

-Enter the SERVICE MODE.

-Start the SENSOR TEST.

-Manually actuate SENSOR B17.

-Trace its output signal on CIRCUIT BOARD A8 sheet 3.

-Replace the faulty component.

CAUSE 4:

There is a mechanical defect.

8D ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE FILM PICK UP

PROBLEM:

This problem occurred during LOAD ONLY. The LEADING EDGE of the CASSETTE FILM is not recognised by the SENSOR B20 VACUUM OFF.

CAUSE 1:

There is no FILM in the CASSETTE. The problem can only occur with 2 types of CASSETTES.

- With a CRT-CASSETTE. The CRT CASSETTE has no screen. Therefore no vacuum can be built up in the CASSETTE SUCKERS and the SUCKER BAR can tilt back.
- With a MAMMO-CASSETTE. In the area of the LEAD BLOCKER is a vacuum leak and only a weak vacuum is built up in the CASSETTE SUCKERS and the SUCKER BAR can tilt back.

-Explain it to the customer.

CAUSE 2:

A film jam occurred. The FILM was guided under the mirror of SENSOR B20/C_PU_VO VACUUM OFF.

-Check the CASSETTE SUCKER BAR adjustment.

CAUSE 3:

The adjustment of SENSOR B20 is not correct.
-Adjust SENSOR B20.

NOTE

If the SENSOR B20 does not recognise the FILM, the vacuum is not switched off and the FILM sticks at the SUCKERS. After some time the FILM may be transported through the CONVEYOR and may drop into the FILM POCKET AREA.

CAUSE 4:

The film is highly transparent for infrared(for example AGFA DUPLICATE FILM).
-Replace SENSOR B20.

CAUSE 5:

SENSOR B20/C_PU_VO VACUUM OFF is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B20.
-Trace its output signal on CIRCUIT BOARD A8 Sheet 3.

NOTE

A Logic PEN is required. SENSOR B20 is pulsed by the OSCILLATOR U37.

CAUSE 6:

115 VAC missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the Power Supply.
-INTERLOCK SYSTEM RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 7:

MOTOR M6/C_PU CASSETTE FILM PICK UP is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE FILM PICK UP backwards.
-Trace the Signal M_PU_R on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 8:

The CASSETTE SUCKER BAR lost the FILM.
-Check for a vacuum leakage.

8E ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE FILM PICK UP

PROBLEM:

This problem occurred during LOAD ONLY. The CASSETTE SUCKER BAR CARRIAGE did not reach its rear position within 3 seconds after a FILM was picked up in the CASSETTE and the LEADING EDGE of the FILM is not recognised.

CAUSE 1:

The CASSETTE SCREEN is loose on one side.

CAUSE 2:

115 VAC missing at CIRCUIT BOARD A8.

-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 3:

MOTOR M6/C_PU CASSETTE FILM PICK UP is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE FILM PICK UP backwards.
-Trace the signal M_PU_R on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 4:

SENSOR B18/C_PU_ER FILM PICK UP REAR is defective.
-Enter the SERVICE MODE.
-Manually actuate SENSOR B18.
-Trace its output signal on CIRCUIT BOARD A8 sheet 3.
-Replace the faulty component.

CAUSE 5:

SENSOR B20/C_PU_VO VACUUM OFF is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B20.
-Trace its output signal on CIRCUIT BOARD A8 sheet 3.

NOTE

A LOGIC PEN is required. SENSOR B20 is pulsed by OSCILLATOR U37.
-Replace the faulty component.

8F ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE FILM PICK UP

PROBLEM:

This problem occurred during LOAD ONLY. The CASSETTE SUCKER BAR reached its rear position and the FILM TRAILING EDGE is not recognised by the SENSOR B20 VACUUM OFF within the next 20 seconds.

CAUSE 1:

There is a film jam in the CONVEYER (approx. in the middle of the film guide). This problem can only occur with 18x24 or 8"x10" films.
-Adjust the CASSETTE SUCKER BAR ASSEMBLY.
-Set the PARAMETER VACUUM OFF TIME to 80 ms.

CAUSE 2:

The FILMS stall at the GUIDE PLATE CUT-OUTS of the front set TRANSPORT ROLLERS. This problem may occur with large FILMS.
-Carefully bend the the CUT OUT EDGE upwards.

CAUSE 3:

SENSOR B20/C_PU_VO VACUUM OFF is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate the SENSOR B20.
-Trace its output signal on CIRCUIT BOARD A8 sheet 3.

NOTE
A LOGIC PEN is required. SENSOR B20 is pulsed by the OSCILLATOR U37.

CAUSE 4:
The FILM sticks to the SUCKERS.
-Check if the Vacuum is turned off.

CAUSE 5:
115 VAC missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 6:
MOTOR M7/C_PU_RO ROLLER MOTOR is not running.
-Enter the SERVICE MODE.
-Start the CASSETTE ROLLER MOTOR.
-Trace Signal M_C_PU_RO on CIRCUIT BOARD A8 Sheet 7.
-Replace the faulty component.

90 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE FILM PICK UP

PROBLEM:
This problem occurred during LOAD ONLY. The TRAILING EDGE of the FILM was detected too early by the SENSOR B20 VACUUM OFF. This means the FILM dropped down before it was caught by the TRANSPORT ROLLERS.

CAUSE 1:
The VACUUM SYSTEM has a leakage.

CAUSE 2:
The SENSOR B18/C_PU_ER FILM PICK UP END SWITCH REAR is in the wrong position.
-Adjust SENSOR B18.

CAUSE 3:
SENSOR B20/C_PU_VO VACUUM OFF is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate the SENSOR B20.
-Trace its output signal on CIRCUIT BOARD A8 sheet 3.

NOTE
A LOGIC PEN is required. SENSOR B20 is pulsed by the OSCILLATOR U37. It is possible that films highly transparent for infrared (for example AGFA DUPLICATE FILM) are not recognised by SENSOR B20. In this case replace the SENSOR.

CAUSE 4:
115 VAC missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY:
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT are closed.

CAUSE 5:

MOTOR M7/C_PU_RO ROLLER MOTOR is not running.
-Enter the SERVICE MODE.
-Start the CASSETTE ROLLER MOTOR.
-Trace Signal M_C_PU_RO on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

91 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE FILM PICK UP

PROBLEM:

The CASSETTE SUCKER BAR is in the CASSETTE to pick up the FILM, however the SUCKER BAR is not tilted. 3rd attempt.

CAUSE 1:

SOLENOID Y7/C_PU TILTING SUCKER BAR is not working.
-Enter the SERVICE MODE.
-Turn on the SOLENOID TILTING CASSETTE SUCKER BAR.
-Trace the signal Y_C_PU on CIRCUIT BOARD A8 sheet 6.
-Replace the faulty component.

NOTE

Check for broken wires to the SOLENOID Y7 or SENSOR B19. If modification 18 is not installed, install it.

CAUSE 2:

SENSOR B19/C_PU_T SUCKER BAR TILT is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B19.
-Trace its output signal on CIRCUIT BOARD A8 sheet 3.
-Replace the faulty component.

NOTE

Check for broken wires to the SOLENOID Y7 . If modification 18 is not installed, install it. It is possible too that the SENSOR ACTUATOR of B19 is blocked by the ACTUATING CURVE. Check for ease of movement of the actuator lever.

92 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE FILM PICK UP

PROBLEM:

The CASSETTE SUCKER BAR is pulled out of the CASSETTE but not tilted back. 3rd attempt.

CAUSE 1:

The FILM sticks to the UPPER SCREEN.
-Check that the BLOW PIPE ASSEMBLY rests correctly on the CASSETTE LID.
-Check that air is blown through the BLOW PIPES.
-Check the BLOW PIPE POSITION.
-Increase value of PARAMETER BLOW TIME.
-Use LETRALINE.

CAUSE 2:

The SUCKER BAR is too far inside the CASSETTE and cannot tilt back, even when a FILM is on the TUBE SIDE SCREEN. This problem especially occurs when the CASSETTES are excessively curved.

-Adjust the position of the CASSETTE SUCKER BAR (18+1mm away from the leading edge).

CAUSE 3:

SOLENOID Y7/C_PU TILTING SUCKER BAR is blocked or its SPRING is defective.

CAUSE 4:

SENSOR B19/C_PU_T SUCKER BAR TILT is defective.

-Enter the SERVICE MODE.

-Start the SENSOR TEST.

-Manually actuate SENSOR B19.

-Trace its output signal on CIRCUIT BOARD A8 sheet 3.

-Replace the faulty component.

93 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE FILM PICK UP

PROBLEM:

The CASSETTE SUCKER BAR CARRIAGE did not reach the FRONT POSITION to pick up a FILM from the CASSETTE.

CAUSE 1:

115 VAC missing at CIRCUIT BOARD A8.

-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.

-If the voltage is missing check the following:

-FUSE F1 in the POWER SUPPLY:

-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 2:

MOTOR M6/C_PU CASSETTE FILM PICK UP is not running.

-Enter the SERVICE MODE.

-Start MOTOR CASSETTE FILM PICK UP forward.

-Trace the Signal M_PU_F on CIRCUIT BOARD A8 sheet 7.

-Replace the faulty component.

CAUSE 3:

SENSOR B17/C_PU_EF FILM PICK UP FRONT is defective.

-Enter the SERVICE MODE.

-Start the SENSOR TEST.

-Manually actuate SENSOR B17.

-Trace its output signal on CIRCUIT BOARD A8 sheet 3.

-Replace the faulty component.

CAUSE 4:

There is a mechanical defect.

94 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE FILM PICK UP

PROBLEM:

The LEADING EDGE of the CASSETTE FILM is not recognised by the SENSOR B20 VACUUM OFF.
3rd attempt.

CAUSE 1:

There is no FILM in the CASSETTE. The problem can only occur with 2 types of CASSETTES.

- 1. With a CRT-CASSETTE. The CRT CASSETTE has no screen. Therefore no vacuum can be built up in the CASSETTE SUCKERS and the SUCKER BAR can tilt back.
- 2. With a MAMMO-CASSETTE. In the area of the LEAD BLOCKER is a vacuum leak and only a weak vacuum is built up in the CASSETTE SUCKERS and the SUCKER BAR can tilt back.

-Explain it to the customer.

CAUSE 2:

There is a FILM in the MAMMO CASSETTE. The problem can occur, if the CASSETTE BLOW PIPES are not adjusted correctly. In this case the FILM may stick to the LID SCREEN. This condition is not recognised by the ML300 and the CASSETTE SUCKER BAR tries to pick up the FILM from the TUBE SIDE SCREEN If the SUCKERS are sealed correctly to the TUBE SIDE, the ML300 will recognise that there is no FILM. If however the SUCKERS are not sealed correctly due to the LEAD BLOCKER of the CASSETTE, the vacuum is not built up correctly, the CASSETTE SUCKER BAR tilts back and the problem occurs.

-Adjust the CASSETTE SUCKER BAR BLOW PIPES.

CAUSE 3:

A film jam occurred. The FILM was guided under the mirror of SENSOR B20/C_PU_VO VACUUM OFF.

-Check the CASSETTE SUCKER BAR adjustment.

CAUSE 4:

The adjustment of SENSOR B20 is not correct.

-Adjust SENSOR B20.

NOTE

If the SENSOR B20 does not recognise the FILM, the vacuum is not switched off and the FILM sticks at the SUCKERS. After some time the FILM may be transported through the CONVEYOR and may drop into the FILM POCKET AREA.

CAUSE 5:

The film is highly transparent for infra red(for example AGFA DUPLICATE FILM).

-Replace SENSOR B20.

CAUSE 6:

SENSOR B20/C_PU_VO VACUUM OFF is defective.

-Enter the SERVICE MODE.

-Start the SENSOR TEST.

-Manually actuate SENSOR B20.

-Trace its output signal on CIRCUIT BOARD A8 Sheet 3.

NOTE

A Logic PEN is required. SENSOR B20 is pulsed by the OSCILLATOR U37.

CAUSE 7:

115 VAC missing at CIRCUIT BOARD A8.

-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.

-If the voltage is missing check the following:

-FUSE F1 in the Power Supply.

-INTERLOCK SYSTEM RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 8:

MOTOR M6/C_PU CASSETTE FILM PICK UP is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE FILM PICK UP backwards.
-Trace the Signal M_PU_R on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 9:

The CASSETTE SUCKER BAR lost the FILM.
-Check for a vacuum leakage.

95 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE FILM PICK UP

PROBLEM:

The CASSETTE SUCKER BAR CARRIAGE did not reach its rear position within 3 seconds after a FILM was picked up in the CASSETTE.

CAUSE 1:

The CASSETTE SCREEN is loose on one side.

CAUSE 2:

115 VAC missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 3:

MOTOR M6/C_PU CASSETTE FILM PICK UP is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE FILM PICK UP backwards.
-Trace the signal M_PU_R on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 4:

SENSOR B18/C_PU_ER FILM PICK UP REAR is defective.
-Enter the SERVICE MODE.
-Manually actuate SENSOR B18.
-Trace its output signal on CIRCUIT BOARD S8 sheet 3.
-Replace the faulty component.

CAUSE 5:

SENSOR B20/C_PU_VO VACUUM OFF is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B20.
-Trace its output signal on CIRCUIT BOARD A8 sheet 3.

NOTE

A LOGIC PEN is required. SENSOR B20 is pulsed by OSCILLATOR U37.

-Replace the faulty component.

96 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE FILM PICK UP

PROBLEM:

The CASSETTE SUCKER BAR reached its rear position and the FILM TRAILING EDGE is not recognised by the SENSOR B20 VACUUM OFF within the next 20 seconds.

CAUSE 1:

There is a film jam in the CONVEYER (approx. in the middle of the film guide).
This problem can only occur with 18x24 or 8"x10" films.
-Adjust the CASSETTE SUCKER bar ASSEMBLY.
-Set the PARAMETER VACUUM OFF TIME to 80 ms.

CAUSE 2:

The FILMS stalls at the GUIDE PLATE CUT-OUTS of the front set TRANSPORT ROLLERS. This problem may occur with large FILMS.
-Carefully bend the the CUT OUT EDGE upwards.

CAUSE 3:

SENSOR B20/C_PU_VO VACUUM OFF is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate the SENSOR B20.
-Trace its output signal on CIRCUIT BOARD A8 sheet 3.

NOTE

A LOGIC PEN is required. SENSOR B20 is pulsed by the OSCILLATOR U37.

CAUSE 4:

The FILM sticks to the SUCKERS.
-Check if the Vacuum is turned off.

CAUSE 5:

115 VAC missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 6:

MOTOR M7/C_PU_RO ROLLER MOTOR is not running.
-Enter the SERVICE MODE.
-Start the CASSETTE ROLLER MOTOR.
-Trace Signal M_C_PU_RO on CIRCUIT BOARD A8 Sheet 7.
-Replace the faulty component.

97 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE FILM PICK UP

PROBLEM:

The TRAILING EDGE of the FILM was detected too early by the SENSOR B20 VACUUM OFF. This means the FILM dropped down before it was caught by the TRANSPORT ROLLERS.

CAUSE 1:

The VACUUM SYSTEM has a leakage.

CAUSE 2:

The SENSOR B18/C_PU_ER FILM PICK UP END SWITCH REAR is in the wrong position.
-Adjust SENSOR B18.

CAUSE 3:

SENSOR B20/C_PU_VO VACUUM OFF is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate the SENSOR B20.
-Trace its output signal on CIRCUIT BOARD A8 sheet 3.

NOTE

A LOGIC PEN is required. SENSOR B20 is pulsed by the OSCILLATOR U37. It is possible that films highly transparent for infrared (for example AGFA DUPLICATE FILM) are not recognised by SENSOR B20. In this case replace the SENSOR.

CAUSE 4:

115 VAC missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY:
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT are closed.

CAUSE 5:

MOTOR M7/C_PU_RO ROLLER MOTOR is not running.
-Enter the SERVICE MODE.
-Start the CASSETTE ROLLER MOTOR.
-Trace Signal M_C_PU_RO on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

99 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE FILM PICK UP

PROBLEM:

This problem occurred during LOAD ONLY.
The LEADING EDGE of the FILM is recognised, but the CASSETTE SUCKER BAR did not reach the REAR POSITION and a time-out occurred.

CAUSE 1:

SENSOR B18/C_PU_ER FILM PICK UP REAR is defective.
-Enter the SERVICE MODE.
-Manually actuate SENSOR B18.

NOTE
Check that the MIRROR is o.k.
-Trace its output signal on CIRCUIT BOARD A8 sheet 3.
-Replace the faulty component.

CAUSE 2:
115 VA missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between Pin 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 3:
MOTOR M6/C_PU CASSETTE FILM PICK UP is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE FILM PICK UP backwards.
-Trace the signal M_PU_R on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 4:
There is a mechanical defect.

9A ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE CLOSING

PROBLEM:
This problem occurred during LOAD ONLY. The CASSETTE OPENER did not reach its BOTTOM POSITION within 2 seconds after the CASSETTE OPENER MOTOR is started and a time out occurred.

CAUSE 1:
The OPENER MECHANISM is blocked mechanically.
-It is most likely that the STOP PIN is too close to the STOP BOLT for OPENER DOWN.
-Adjust the CASSETTE OPENER.

CAUSE 2:
SENSOR B15/C_OP_EO CASSETTE OPENER END SWITCH OPEN is misadjusted.
-Adjust the CASSETTE OPENER.

CAUSE 3:
MOTOR M5/OP CASSETTE does not move.
-Start the COMPONENT TEST and start the CASSETTE OPENER MOTOR in reverse direction.
-Trace the signal M_C_OP_P on PCB A8 sheet 5 and signal close on PCB A8 sheet 5 and PCB A9.
-Replace the faulty components.

CAUSE 4:
ODOMETER CIRCUIT BOARD A10/3 is defective.
-Enter the SERVICE MOTOR.
-Start MOTOR CASSETTE OPENER forward/backward.
-Trace the output signals of A10/3 on CIRCUIT BOARD A8 sheet 1.

NOTE
To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

CAUSE 4:

FILM lays in the CASSETTE LABYRINTH.

-Check the front position of the FILM POCKET SUCKER BAR ARM. If it does not reach a stable front position adjust the TIMING DISK.

-Check that the fresh FILM is blown off the FILM POCKET SUCKERS. If it is not blown off correctly check the SOLENOID VALVE Y10/M_PU_BS. If Y10 becomes energised, but does not work, take out its blue SCREW, run a few cycles and insert the SCREW again. This SOLENOID is sometimes blocked by small particles and they become blown off when the SCREW is out for a few cycles.

9B ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE CLOSING

PROBLEM:

This problem occurred during LOAD ONLY. The CASSETTE SUCKER BAR is not in the REAR POSITION.

CAUSE 1:

The CASSETTE SUCKER BAR is in the wrong position. The CASSETTE SUCKER BAR was moved out of its rear position by vibrations or manually.

-Check the adjustment of SENSOR B18/C_PU_ER.

CAUSE 2:

SENSOR B18/C_PU_ER does not detect that the CASSETTE SUCKER BAR CARRIAGE is in the REAR POSITION.

-Enter the SERVICE MODE.

-Start the SENSOR TEST.

-Manually move the CASSETTE SUCKER BAR CARRIAGE to the REAR POSITION.

-Trace the output signal from SENSOR B18/C_PU_ER on the CIRCUIT BOARD A8 sheet 3.

-Replace the faulty component.

CAUSE 3:

There is a mechanical defect.

9C ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE CLOSING

PROBLEM:

This problem occurred during LOAD ONLY. The CASSETTE OPENER did not reach the SENSOR B15/C_OP_EO within 2 seconds after the CASSETTE OPENER MOTOR was started in the CASSETTE EMPTY POSITION.

CAUSE 1:

The OPENER MECHANISM is blocked mechanically.

-It is most likely that the STOP PIN is too close to the STOP BOLT for OPENER DOWN.

-Adjust the CASSETTE OPENER.

CAUSE 2:

SENSOR B15/C_OP_EO CASSETTE OPENER END SWITCH OPEN is misadjusted.

-Adjust the CASSETTE OPENER.

CAUSE 3:

MOTOR M5/OP CASSETTE does not move.

-Start the COMPONENT TEST and start the CASSETTE OPENER MOTOR in reverse direction.

-Trace the signal M_C_OP_P on PCB A8 sheet 5 and signal close on PCB A8 sheet 5 and PCB A9.

-Replace the faulty components.

CAUSE 4:

ODOMETER CIRCUIT BOARD A10/3 is defective.
-Enter the SERVICE MOTOR.
-Start MOTOR CASSETTE OPENER forward/backward.
-Trace the output signals of A10/3 on CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

9D ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE CLOSING (only in software below version 3.1)

PROBLEM:

This problem occurred during LOAD ONLY. At the end of the cycle an empty CASSETTE stays open. The CASSETTE OPENER stop at the CASSETTE EMPTY POSITION. If the OPENER did not reach this position within 2 seconds after the CASSETTE OPENER MOTOR was started, a time-out occurs.

CAUSE 1:

MOTOR M5/C_OP CASSETTE OPENING does not run.
-Enter the SERVICE MODE.
-Start the CASSETTE OPENER MOTOR in forward direction.
-Trace the signal M_C_OP_F on PCB A8 sheet 5 and signal OPEN on CIRCUIT BOARD A8 sheet 5 and A9.
-Replace the faulty components.

CAUSE 2:

ODOMETER A10/3 is defective.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE OPENER forward/backward.
-Trace the output signal of A10/3 on CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

CAUSE 3:

There is a mechanical defect.

9E ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE CLOSING

PROBLEM:

This problem occurred during LOAD ONLY.
The CASSETTE OPENER is not in the UPPER POSITION. This is tested at the begin of the function.

CAUSE 1:

The OPENER MECHANISM is blocked mechanically.
-It is most likely that the STOP PIN is too close to the STOP BOLT for OPENER DOWN.
-Adjust the CASSETTE OPENER.

CAUSE 2:

SENSOR B15/C_OP_EO CASSETTE OPENER END SWITCH OPEN is misadjusted.
-Adjust the CASSETTE OPENER.

CAUSE 3:

MOTOR M5/OP CASSETTE does not move.
-Start the COMPONENT TEST and start the CASSETTE OPENER MOTOR in reverse direction.
-Trace the signal M_C_OP_P on PCB A8 sheet 5 and signal close on PCB A8 sheet 5 and PCB A9.
-Replace the faulty components.

CAUSE 4:

ODOMETER CIRCUIT BOARD A10/3 is defective.
-Enter the SERVICE MOTOR.
-Start MOTOR CASSETTE OPENER forward/backward.
-Trace the output signals of A10/3 on CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

9F ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE FILM PICK UP

PROBLEM:

The LEADING EDGE of the FILM is recognised, but the CASSETTE SUCKER BAR did not reach the REAR POSITION and a time-out occurred.

CAUSE 1:

SENSOR B18/C_PU_ER FILM PICK UP REAR is defective.
-Enter the SERVICE MODE.
-Manually actuate SENSOR B18.

NOTE

Check that the MIRROR is o.k.
-Trace its output signal on CIRCUIT BOARD A8 sheet 3.
-Replace the faulty component.

CAUSE 2:

115 VA missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between Pin 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 3:

MOTOR M6/C_PU CASSETTE FILM PICK UP is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE FILM PICK UP backwards.
-Trace the signal M_PU_R on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 4:

There is a mechanical defect.

A0 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE CLOSING (only in software below version 3.1)

PROBLEM:

The CASSETTE OPENER did not reach its BOTTOM POSITION within 2 seconds after the CASSETTE OPENER MOTOR is started and a time out occurred.

CAUSE 1:

The OPENER MECHANISM is blocked mechanically.
-It is most likely that the STOP PIN is too close to the STOP BOLT for OPENER DOWN.
-Adjust the CASSETTE OPENER.

CAUSE 2:

SENSOR B15/C_OP_EO CASSETTE OPENER END SWITCH OPEN is misadjusted.
-Adjust the CASSETTE OPENER.

CAUSE 3:

MOTOR M5/OP CASSETTE does not move.
-Start the COMPONENT TEST and start the CASSETTE OPENER MOTOR in reverse direction.
-Trace the signal M_C_OP_P on PCB A8 sheet 5 and signal close on PCB A8 sheet 5 and PCB A9.
-Replace the faulty components.

CAUSE 4:

ODOMETER CIRCUIT BOARD A10/3 is defective.
-Enter the SERVICE MOTOR.
-Start MOTOR CASSETTE OPENER forward/backward.
-Trace the output signals of A10/3 on CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

CAUSE 4:

FILM lays in the CASSETTE LABYRINTH.
-Check the front position of the FILM POCKET SUCKER BAR ARM. If it does not reach a stable front position adjust the TIMING DISK.
-Check that the fresh FILM is blown off the FILM POCKET SUCKERS. If it is not blown off correctly check the SOLENOID VALVE Y10/M_PU_BS. If Y10 becomes energised, but does not work, take out its blue SCREW, run a few cycles and insert the SCREW again. This SOLENOID is sometimes blocked by small particles and they become blown off when the SCREW is out for a few cycles.

A1 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE CLOSING

PROBLEM:

The CASSETTE SUCKER BAR is not in the REAR POSITION.

CAUSE 1:

The CASSETTE SUCKER BAR is in the wrong position. The CASSETTE SUCKER BAR was moved out of its rear position by vibrations or manually.
-Check the adjustment of SENSOR B18/C_PU_ER.

CAUSE 2:

SENSOR B18/C_PU_ER does not detect that the CASSETTE SUCKER BAR CARRIAGE is in the REAR POSITION.

-Enter the SERVICE MODE.

-Start the SENSOR TEST.

-Manually move the CASSETTE SUCKER BAR CARRIAGE to the REAR POSITION.

-Trace the output signal from SENSOR B18/C_PU_ER on the CIRCUIT BOARD A8 sheet 3.

-Replace the faulty component.

CAUSE 3:

There is a mechanical defect.

A2 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE CLOSING

PROBLEM:

The CASSETTE OPENER did not reach the SENSOR B15/C_OP_EO within 2 seconds after the CASSETTE OPENER MOTOR was started in the CASSETTE EMPTY POSITION.

CAUSE 1:

The OPENER MECHANISM is blocked mechanically.

-It is most likely that the STOP PIN is too close to the STOP BOLT for OPENER DOWN.

-Adjust the CASSETTE OPENER.

CAUSE 2:

SENSOR B15/C_OP_EO CASSETTE OPENER END SWITCH OPEN is misadjusted.

-Adjust the CASSETTE OPENER.

CAUSE 3:

MOTOR M5/OP CASSETTE does not move.

-Start the COMPONENT TEST and start the CASSETTE OPENER MOTOR in reverse direction.

-Trace the signal M_C_OP_P on PCB A8 sheet 5 and signal close on PCB A8 sheet 5 and PCB A9.

-Replace the faulty components.

CAUSE 4:

ODOMETER CIRCUIT BOARD A10/3 is defective.

-Enter the SERVICE MOTOR.

-Start MOTOR CASSETTE OPENER forward/backward.

-Trace the output signals of A10/3 on CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.

-Replace the faulty component.

A3 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE CLOSING

PROBLEM:

At the end of the cycle an empty CASSETTE stays open. The CASSETTE OPENER stops at the CASSETTE EMPTY POSITION. If the OPENER did not reach this position within 2 seconds after the CASSETTE OPENER MOTOR was started, a time-out occurs.

CAUSE 1:

MOTOR M5/C_OP CASSETTE OPENING does not run.
-Enter the SERVICE MODE.
-Start the CASSETTE OPENER MOTOR in forward direction.
-Trace the signal M_C_OP_F on CIRCUIT BOARD A8 sheet 5 and signal OPEN on CIRCUIT BOARD A8 sheet 5 and CIRCUIT BOARD A9.
-Replace the faulty components.

CAUSE 2:

ODOMETER A10/3 is defective.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE OPENER forward/backward.
-Trace the output signal of A10/3 ON CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

CAUSE 3:

There is a mechanical defect.

A4 ERROR CODE OF CASSETTE TASK

FUNCTION: CASSETTE CLOSING

PROBLEM:

The CASSETTE OPENER is not in the UPPER POSITION. This is tested at the begining of the function.

CAUSE 1:

The OPENER MECHANISM is blocked mechanically.
-It is most likely that the STOP PIN is too close to the STOP BOLT for OPENER DOWN.
-Adjust the CASSETTE OPENER.

CAUSE 2:

SENSOR B15/C_OP_EO CASSETTE OPENER END SWITCH OPEN is misadjusted.
-Adjust the CASSETTE OPENER.

CAUSE 3:

MOTOR M5/OP CASSETTE does not move.
-Start the COMPONENT TEST and start the CASSETTE OPENER MOTOR in reverse direction.
-Trace the signal M_C_OP_P on PCB A8 sheet 5 and signal close on PCB A8 sheet 5 and PCB A9.
-Replace the faulty components.

CAUSE 4:

ODOMETER CIRCUIT BOARD A10/3 is defective.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE OPENER forward/backward.
-Trace the output signals of A10/3 on CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

A5 ERROR CODE OF CASSETTE TASK

FUNCTION: MOVE HOLDING FINGER BACK

PROBLEM:

The HOLDING FINGER is not stopped at its FRONT END POSITION or the pulse comparison between CASSETTE WIDTH DETECTION and the forward movement to the FRONT END POSITION failed.

CAUSE 1:

There was no stop condition.
-Check the mechanical linkage for any slip or interruption.

CAUSE 2:

MOTOR M3/C_HF HOLDING FINGER is not running.
-Enter the SERVICE MODE.
-Start the MOTOR HOLDING FINGER forward and backward.
-Trace the signals M_C_HF_F (forward) and M_C_HF_R (reverse) on the CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 3:

The pulse comparison between forward and backward movement of the HOLDING FINGER is not ok.
-Check the adjustment of the ODOMETER A10/1.

CAUSE 4:

ODOMETER A10/1 is defective.
-Enter the SERVICE MODE.
-Start MOTOR HOLDING FINGER forward/backward.
-Trace the output signals on CIRCUIT BOARD A8 sheet 1.

NOTE

To trace the COUNTING SIGNAL a LOGIC PEN is required.
-Replace the faulty component.

CAUSE 5:

There is a mechanical defect.

CAUSE 6:

115 VAC missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X48 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE 1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

A6 ERROR CODE OF CASSETTE TASK

FUNCTION: COMPLETE FEED OUT CYCLE

PROBLEM:

The CASSETTE CENTRING BARS did not reach the open position and a time-out occurred.

CAUSE 1:

The CENTERING BARS do not move to the centre.
-Check if the DRIVE GEAR at the CENTERING MOTOR is broken. Replace it with the new white DRIVE GEAR PN 9221850.

CAUSE 2:

The CENTERING BARS do not move to the open position.
-If the TIMING BELT tension is too high, reduce the tension.

CAUSE 3:

SENSOR B10/C_CE_EO CENTERING BARS END SWITCH OPEN is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually operate SENSORS B10.
-Trace its output on CIRCUIT BOARD A8 Sheet 2.
-Replace the faulty component.

CAUSE 4:

MOTOR M4/C_CE CASSETTE CENTRING is not running.
-Enter the SERVICE MODE
-Start the MOTOR CENTRING CASSETTE.
-Trace the signal M_C_CE_C on CIRCUIT BOARD A8 Sheet 7.
-Replace the faulty component.

CAUSE 5:

115 VAC missing at BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between Pin 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWERS SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 6:

There is a mechanical defect.

A7 ERROR CODE OF CASSETTE TASK

FUNCTION: COMPLETE FEED OUT CYCLE

PROBLEM:

The INPUT FLAP was not closed and a time-out occurred.

CAUSE 1:

Sensor B3/C_IF_EO CASSETTE INPUT FLAP END SWITCH OPEN is out of adjustment.
-Adjust SENSOR B3.

NOTE

It is not necessary to take off the FRONT PANEL. SENSOR B3 can be adjusted from the CASSETTE TRANSPORT AREA.

CAUSE 2:

SENSOR B3/C_IN_EO CASSETTE INPUT FLAP OPEN is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B3.
-Trace its output signal on CIRCUIT BOARD A8 sheet 1.
-Replace the faulty component.

CAUSE 3:

115 VAC missing at BOARD A8.

-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the voltage is missing check the following:
-Fuse F1 in the POWER SUPPLY.
-Interlock System. Relay K2 in the Power Supply will only be energised when the Top Cover and the Front Door are closed.

CAUSE 4:

MOTOR M1/C_IF INPUT FLAP is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE INPUT FLAP.
-Trace the signal MC_C_IF on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 5:

There is a mechanical defect.

A8 ERROR CODE OF CASSETTE TASK

FUNCTION: COMPLETE FEED OUT CYCLE

PROBLEM:

During feed out the CASSETTE did not actuate SENSOR B2/C_IN_R CASSETTE REGISTRATION or the INPUT FLAP was not opened.

CAUSE 1:

The CASSETTE stuck during feed out. This problem occurs most likely when an empty, this means open, CASSETTE is returned. The problem is caused by curved CASSETTES.
-Put the CASSETTE aside.

CAUSE 2:

No CASSETTE was fed in.

CAUSE 3:

The Cassette is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 4:

SENSOR B2/C_IN_R CASSETTE REGISTRATION is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B2.
-Trace its output signal on CIRCUIT BOARD A8 sheet 2.
-Replace the faulty component.

CAUSE 5:

MOTOR M2 CASSETTE INPUT is not running.
-Enter the SERVICE MODE.
-Start the MOTOR CASSETTE INPUT backwards.
-Trace the signal M_C_IN_R from CIRCUIT BOARD A8 sheet 5 to A9.
-Replace the faulty component.

CAUSE 6:

MOTOR M1/C_IF INPUT FLAP is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE INPUT FLAP.
-Trace the signal MC_C_IF on CIRCUIT BOARD A8 sheet 7.

-Replace the faulty component.

CAUSE 7:

SENSOR B3/C_IN_EO CASSETTE INPUT FLAP OPEN is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B3.
-Trace its output signal on CIRCUIT BOARD A8 sheet 1.
-Replace the faulty component.

CAUSE 8:

115 VAC missing at BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the voltage is missing check the following:
-Fuse F1 in the POWER SUPPLY.
-Interlock System. Relay K2 in the Power Supply will only be energised when the Top Cover and the Front Door are closed.

A9 ERROR CODE OF CASSETTE TASK

FUNCTION: COMPLETE FEED OUT CYCLE

PROBLEM:

The CASSETTE is not fed out of the MULTILOADER.

CAUSE 1:

The CASSETTE is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 2:

At least 2 of the 3 CASSETTE END SWITCHES B5/C_IN_EL; B6/C_IN_EM, B7/C_IN_ER are defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate the SENSORS B5, B6, B7.
-Trace their output signals on CIRCUIT BOARD A8 sheet 2.
-Replace the faulty component.

CAUSE 3:

MOTOR M2/C_IN CASSETTE INPUT is not running.
-Enter the SERVICE MODE.
-Start the MOTOR CASSETTE INPUT backwards.
-Trace the Signal M_C_IN_R from CIRCUIT BOARD A8 sheet 5 to A9.
-Replace the faulty component.

AA ERROR CODE OF CASSETTE TASK

FUNCTION: COMPLETE FEED OUT CYCLE

PROBLEM: A6+A7

The CASSETTE CENTRING BARS did not reach the open position and the INPUT FLAP was not opened and a time-out occurred.

CAUSE 1:

115 VAC missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 2:

MOTOR M4 CASSETTE CENTRING is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE CENTRING backwards.
-Check the signal M_C_CE_O. See CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 3:

SENSOR B10/C_CE_EO CASSETTE CENTRING BARS OPENED is defective.
-Enter the SERVICE MODE.
-Manually actuate SENSOR B10.
-Trace its output signal on CIRCUIT BOARD A8 sheet 2.
-Replace the faulty component.

CAUSE 4:

There is a mechanical defect.

CAUSE 5:

MOTOR M1/C_IF INPUT FLAP is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE INPUT FLAP.
-Trace the signal M_C_IF on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 6:

SENSOR B3/C_IN_EO CASSETTE INPUT FLOP OPEN is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B3.
-Trace its output signal on CIRCUIT BOARD A8 sheet 1.
-Replace the faulty component.

AB ERROR CODE OF CASSETTE TASK

FUNCTION: COMPLETE FEED OUT CYCLE

PROBLEM: A6 + A8

The CASSETTE CENTRING BARS did not reach the open position and during feed out the CASSETTE does not actuate SENSOR B2/C_IN_R CASSETTE REGISTRATION.

CAUSE 1:

115 VAC missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 2:

MOTOR M4 CASSETTE CENTRING is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE CENTRING backwards.
-Check the signal M_C_CE_O. See CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 3:

SENSOR B10/C_CE_EO CENTRING BARS OPENED is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B10.
-Trace its output signal on CIRCUIT BOARD A8 sheet 2.
-Replace the faulty component.

CAUSE 4:

There is a mechanical defect.

CAUSE 5:

SENSOR B2/C_IN_R CASSETTE REGISTRATION is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B2.
-Trace its output signal on CIRCUIT BOARD A8 sheet 2.
-Replace the faulty component.

CAUSE 6:

MOTOR M2 CASSETTE INPUT is not running.
-Enter the SERVICE MODE.
-Start the MOTOR CASSETTE INPUT backwards.
-Trace the signal M_C_IN_R from CIRCUIT BOARD A8 sheet 5 to A9.
-Replace the faulty component.

AC ERROR CODE OF CASSETTE TASK

FUNCTION: COMPLETE FEED OUT CYCLE

PROBLEM: A6 + A9

The CASSETTE CENTRING BARS did not reach the open position and the CASSETTE is not fed out of the MULTILOADER.

CAUSE 1:

115 VAC missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 2:

MOTOR M4 CASSETTE CENTRING is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE CENTRING backwards.
-Check the signal M_C_CE_O on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 3:

SENSOR B10/C_CE_EO CASSETTE CENTRING BARS OPENED is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B10
-Trace its output signal on CIRCUIT BOARD A8 sheet 2.
-Replace the faulty component.

CAUSE 4:

There is a mechanical defect.

CAUSE 5:

The CASSETTE is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 6:

At least 2 of the 3 CASSETTE END SWITCHES B5/C_IN_EL, B6/C_IN_EM, B7/C_IN_ER are defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate the SENSORS B5, B6, B7.
-Trace their output signals on CIRCUIT BOARD A8 sheet 2.
-Replace the faulty component.

CAUSE 7:

MOTOR M2/C_IN CASSETTE INPUT is not running.
-Enter the SERVICE MODE.
-Start the MOTOR CASSETTE INPUT backwards.
-Trace the signal M_C_IN_R from CIRCUIT BOARD A8 sheet 5 to A9.
-Replace the faulty component.

AD ERROR CODE OF CASSETTE TASK

FUNCTION: COMPLETE FEED OUT CYCLE

PROBLEM: A6+A7+A8

The CASSETTE CENTRING BARS did not reach the open position and the INPUT FLAP was not closed within 2 seconds after the CASSETTE actuated at least 2 of the 3 CASSETTE END SWITCHES (LEFT, MIDDLE, RIGHT) and a time-out occurred and during feed out the CASSETTE does not actuate Sensor B2/C_IN_R CASSETTE REGISTRATION.

CAUSE 1:

115 VAC missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 2:

MOTOR M4 CASSETTE CENTRING is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE CENTRING backwards.
-Check the SIGNAL M_C_CE_O on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 3:

SENSOR B10/C_CE_EO CENTRING BARS OPENED is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B10.
-Trace its output signal on CIRCUIT BOARD A8 sheet 2.
-Replace the faulty component.

CAUSE 4:

MOTOR M1/C_IF INPUT FLAP is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE INPUT FLAP.
-Trace the signal M_C_IF on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 5:

SENSOR B3/C_IN_EO CASSETTE INPUT FLAP OPEN is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B3.
-Trace its output signal on CIRCUIT BOARD A8 sheet 1.
-Replace the faulty component.

CAUSE 6:

SENSOR B2/C_IN_R CASSETTE REGISTRATION defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B2.
-Trace its output signal on CIRCUIT BOARD A8 sheet 2.
-Replace the faulty component.

CAUSE 7:

MOTOR M2 CASSETTE INPUT is not running.
-Enter the SERVICE MODE.
-Start the MOTOR CASSETTE Input backwards.
-Trace the signal M_C_IN_R from CIRCUIT BOARD A8 sheet 5 to A9.
-Replace the faulty component.

CAUSE 8:

The CASSETTE is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 9:

There is a mechanical defect.

AE ERROR CODE OF CASSETTE TASK

FUNCTION: COMPLETE FEED OUT CYCLE

PROBLEM: CASSETTE A6 + A7 + A9

The CASSETTE CENTRING BARS did not reach the OPEN POSITION and the INPUT FLAP was not closed within 2 seconds after the CASSETTE actuated at least 2 of the 3 CASSETTE END SWITCHES (LEFT, MIDDLE, RIGHT) and a time-out occurred and the CASSETTE is not fed out of the MULTILOADER.

CAUSE 1:

115 VAC missing at CIRCUIT BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between Pin 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. Relay K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 2:

MOTOR M4 CASSETTE CENTRING is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE CENTRING backwards.
-Check the Signal M_C_CE_O on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 3:

SENSOR B10/C_CE_EO CASSETTE CENTRING BARS OPENED is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B10.
-Trace its output signal on CIRCUIT BOARD A8 sheet 2.
-Replace the faulty component.

CAUSE 4:

MOTOR M1/C_IF INPUT FLAP is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE INPUT FLAP.
-Trace the signal M_C_IF on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 5:

SENSOR B3/C_IN_EO CASSETTE INPUT FLOP OPEN is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B3.
-Trace its output signal on CIRCUIT BOARD A8 sheet 1.
-Replace the faulty component.

CAUSE 6:

The CASSETTE is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 7:

At least 2 of the 3 CASSETTE END SWITCHES B5/C_IN_EL, B6/C_IN_EM, B7/C_IN_ER are defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate the SENSORS B5, B6, B7.
-Trace their output signals on CIRCUIT BOARD A8 sheet 2.
-Replace the faulty component.

CAUSE 8:

Motor M2/C_IN CASSETTE INPUT is not running.
-Enter the SERVICE MODE.
-Start the MOTOR CASSETTE INPUT backwards.
-Trace the signal M_C_IN_R from CIRCUIT BOARD A8 sheet 5 to A9.

-Replace the faulty component.

CAUSE 9:

There is a mechanical defect.

AF ERROR CODE OF CASSETTE TASK

FUNCTION: COMPLETE FEED OUT CYCLE

PROBLEM: A7+A8

The INPUT FLAP was not closed within 2 seconds after the CASSETTE actuated at least 2 of the 3 CASSETTE END SWITCHES (LEFT, MIDDLE, RIGHT) and a time-out occurred and during feed out the CASSETTE does not actuate Sensor B2/C_IN_R CASSETTE REGISTRATION.

CAUSE 1:

115 VAC missing at BOARD A8.

-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.

-If the voltage is missing check the following:

-FUSE F1 in the POWER SUPPLY.

-INTERLOCK System. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 2:

MOTOR M1/C_IF INPUT FLAP is not running.

-Enter the SERVICE MODE.

-Start MOTOR CASSETTE INPUT FLAP.

-Trace the signal M_C_IF on CIRCUIT BOARD A8 sheet 7.

-Replace the faulty component.

CAUSE 3:

SENSOR B3/C_IN_EO CASSETTE INPUT FLOP OPEN is defective.

-Enter the SERVICE MODE.

-Start the SENSOR TEST.

-Manually actuate SENSOR B3.

-Trace it's output signal on CIRCUIT BOARD A8 sheet 1.

-Replace the faulty component.

CAUSE 4:

There is a mechanical defect.

CAUSE 5:

The CASSETTE is mechanically blocked.

-Remove the mechanical obstruction.

CAUSE 6:

SENSOR B2/C_IN_R CASSETTE REGISTRATION defective.

-Enter the SERVICE MODE.

-Start the SENSOR TEST.

-Manually actuate SENSOR B2.

-Trace it's output signal on CIRCUIT BOARD A8 sheet 2.

-Replace the faulty component.

CAUSE 7:

MOTOR M2 CASSETTE INPUT is not running.

-Enter the SERVICE MODE.

-Start the MOTOR CASSETTE INPUT backwards.

-Trace the signal M_C_IN_R from CIRCUIT BOARD A8 sheet 5 to A9.
-Replace the faulty component.

CAUSE 8:

No CASSETTE was fed in.

B0 ERROR CODE OF CASSETTE TASK

FUNCTION: MOVE HOLDING FINGER BACK

PROBLEM: CASSETTE A7 + A9

The INPUT FLAP was not closed within 2 seconds after the CASSETTE actuated at least 2 of the 3 CASSETTE END SWITCHES (LEFT, MIDDLE, RIGHT) and a time-out occurred and the CASSETTE is not fed out of the ML300.

CAUSE 1:

115 VAC missing a BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 2:

MOTOR M1/C_IF INPUT FLAP is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE INPUT FLAP.
-Trace the signal M_C_IF on CIRCUIT BOARD A8 sheet 7.
-Replace the faulty component.

CAUSE 3:

Sensor B3/C_IN_EO CASSETTE INPUT FLOP open is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B3.
-Trace it's output signal on CIRCUIT BOARD A8 sheet 1.
-Replace the faulty component.

CAUSE 4:

There is a mechanical defect.

CAUSE 5:

The CASSETTE is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 6:

At least 2 of the 3 CASSETTE END SWITCHES B5/C_IN_EL, B6/C_IN_EM, B7/C_IN_ER are defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate the SENSORS B5, B6, B7.
-Trace their output signals on CIRCUIT BOARD A8 sheet 2.
-Replace the faulty components.

CAUSE 7:

MOTOR M2/C_IN CASSETTE INPUT is not running.
-Enter the SERVICE MODE.

-Start the MOTOR CASSETTE INPUT backwards.
-Trace the signal M_C_IN_R from CIRCUIT BOARD A8 sheet 5 to A9.
-Replace the faulty component.

B1 ERROR CODE OF CASSETTE TASK

FUNCTION: DECENTER CASSETTE

PROBLEM:

The CASSETTE CENTRING BARS did not reach the open position and a time-out occurred.

CAUSE 1:

The CENTRING BARS do not move to the centre.
-Check if the DRIVE GEAR at the CENTRING MOTOR is broken. Replace it with the new white DRIVE GEAR PN 9221850.

CAUSE 2:

The CENTRING BARS do not move to the open position.
-If the TIMING BELT tension is too high, reduce the tension.

CAUSE 3:

SENSOR B10/C_CE_EO CNTERING BARS END SWITCH OPEN is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually operate SENSORS B10.
-Trace its output on CIRCUIT BOARD A8 Sheet 2.
-Replace the faulty component.

CAUSE 4:

MOTOR M4/C_CE CASSETTE CENTRING is not running.
-Enter the SERVICE MODE
-Start the MOTOR CENTRING CASSETTE.
-Trace the signal M_C_CE_C on CIRCUIT BOARD A8 Sheet 7.
-Replace the faulty component.

CAUSE 5:

115 VAC missing at BOARD A8.
-Check with a DVM for 115 VAC at CONNECTOR A8X49 between Pin 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWERS SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 6:

There is a mechanical defect.

B2 ERROR CODE OF CASSETTE TASK

FUNCTION: FEED OUT CASSETTE

PROBLEM:

During feed out the CASSETTE did not actuate SENSOR B2/C_IN_R CASSETTE REGISTRATION or the INPUT FLAP was not opened.

CAUSE 1:

The CASSETTE stuck during feed out. This problem occurs most likely when an empty, this means open, CASSETTE is returned. The problem is caused by curved CASSETTES.

-Put the CASSETTE aside.

CAUSE 2:

No CASSETTE was fed in.

CAUSE 3:

The Cassette is mechanically blocked.

-Remove the mechanical obstruction.

CAUSE 4:

SENSOR B2/C_IN_R CASSETTE REGISTRATION is defective.

-Enter the SERVICE MODE.

-Start the SENSOR TEST.

-Manually actuate SENSOR B2.

-Trace its output signal on CIRCUIT BOARD A8 sheet 2.

-Replace the faulty component.

CAUSE 5:

MOTOR M2 CASSETTE INPUT is not running.

-Enter the SERVICE MODE.

-Start the MOTOR CASSETTE INPUT backwards.

-Trace the signal M_C_IN_R from CIRCUIT BOARD A8 sheet 5 to A9.

-Replace the faulty component.

CAUSE 6:

MOTOR M1/C_IF INPUT FLAP is not running.

-Enter the SERVICE MODE.

-Start MOTOR CASSETTE INPUT FLAP.

-Trace the signal MC_C_IF on CIRCUIT BOARD A8 sheet 7.

-Replace the faulty component.

CAUSE 7:

SENSOR B3/C_IN_EO CASSETTE INPUT FLAP OPEN is defective.

-Enter the SERVICE MODE.

-Start the SENSOR TEST.

-Manually actuate SENSOR B3.

-Trace its output signal on CIRCUIT BOARD A8 sheet 1.

-Replace the faulty component.

CAUSE 8:

115 VAC missing at BOARD A8.

-Check with a DVM for 115 VAC at CONNECTOR A8X49 between PIN 1 and 4.

-If the voltage is missing check the following:

-Fuse F1 in the POWER SUPPLY.

-Interlock System. Relay K2 in the Power Supply will only be energised when the Top Cover and the Front Door are closed.

B3 ERROR CODE OF CASSETTE TASK

FUNCTION: FEED OUT CASSETTE

PROBLEM:

The CASSETTE is not fed out of the MULTILOADER.

CAUSE 1:

The CASSETTE is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 2:

At least 1 of the 3 CASSETTE END SWITCHES B5/C_IN_EL, B6/C_IN_EM, B7/C_IN_ER is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate the SENSORS B5, B6, B7.
-Trace their output signals on CIRCUIT BOARD A8 sheet 2.
-Replace the faulty component.

CAUSE 3:

MOTOR M2/C_IN CASSETTE INPUT is not running.
-Enter the SERVICE MODE.
-Start MOTOR CASSETTE INPUT backwards.
-Trace the Signal M_C_IN_R from CIRCUIT BOARD A8 sheet 5 to A9.
-Replace the faulty component.

D0 ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

The SYSTEM-TASK received a wrong ID number.

CAUSE 1

A software problem occurred.
-Press CLEAR and start again.

CAUSE 2

The POWER SUPPLY is defective.
-Check in addition the voltages on CIRCUIT BOARD A1, A3/1 and A3/2.

D2 ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR start again.

D3 ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

D4 ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

D5 ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

D7 ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

A non-existing CASSETTE SIZE was detected.

CAUSE 1:

A CASSETTE turned by 90 degrees (for example 24x30) was inserted.
-Explain it to the operator.

CAUSE 2:

ODOMETER A10/1(CASSETTE WIDTH) or ODOMETER A10/2(CASSETTE LENGTH) is out of adjustment.
-Start the SERVICE SOFTWARE.
-Select CASS SIZE DETECTION from the COMPONENT TEST.
-Insert a CASSETTE with known (this means measured) outside dimensions.
-See if the displayed result for length or width is not correct.
-Adjust the ODOMETER in question.

CAUSE 3:

ODOMETER A10/1(CASSETTE WIDTH) or ODOMETER A10/2(CASSETTE LENGTH) is defective
-Start the SERVICE SOFTWARE.
-Select CASS SIZE DETECTION from the COMPONENT TEST.
-Insert a CASSETTE with known (this means measured) outside dimensions.
-See if the displayed result for length or width is not correct.
-Check the ODOMETER in question.

NOTE
The SENSOR TEST monitors the signal for the direction only. The COUNT SIGNAL can only be monitored with a LOGIC PEN.
-Replace the faulty component.

CAUSE 4:

The TIMING BELT tension of ODOMETER A10/1 or ODOMETER A10/2 is too high.
-Reduce the tension.

D9 ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE TASK

PROBLEM:

The OPERATING SOFTWARE is not loaded completely. Reload the complete OPERATING SOFTWARE with the LAP TOP.

DB ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE TASK

PROBLEM:

The SOFTWARE VERSION of the MASTER PROCESSOR is not compatible with the SOFTWARE VERSION of the SLAVE PROCESSOR CASSETTE TASK.

CAUSE 1:

The SOFTWARE is not loaded correctly. Reload the OPERATING SOFTWARE of the XML300.

CAUSE 2:

PCB A1 (MASTER PROCESSOR) or PCB A3/1 (SLAVE PROCESSOR CASSETTE TASK) is defective.
Replace the faulty PCB and reload the OPERATING SOFTWARE.

DC ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

This is a SOFTWARE communication problem.
A software problem occurred.

DF ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE TASK

PROBLEM:

The TOP COVER of the ML300 is not closed.

CAUSE 1:

The TOP COVER is not engaged properly.

CAUSE 2:

The ACTUATOR of the TOP COVER INTERLOCK is not adjusted correctly.

Adjust the ACTUATOR that SENSOR B23/C_TCI is actuated safely.

CAUSE 3:

SENSOR B23/C_TCI TOP COVER INTERLOCK is defective.
Enter the SERVICE MODE.
Start the SENSOR TEST.
Manually actuate SENSOR B23.
Trace its output signal on CIRCUIT BOARD A8 sheet 4.
Replace the faulty component.

F0 ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

F1 ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
-The following CIRCUIT BOARDS could be defective
CIRCUIT BOARD A1
or A3/1
-The RS232 CABLE between the MASTER PROCESSOR A1 and the CASSETTE-INTERFACE BOARD could be defective.
CONNECTOR X1 PCB A1 to X33 PCB A8

F2 ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

F3 ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem:
-Reset the ML300 and start again.

CAUSE 2:

HARDWARE problem:
-The following CIRCUIT BOARDS could be defective:
PCB A1
PCB A3/1
-The RS232 CABLE between the MASTER PROCESSOR A1 and the CASSETTE INTERFACE BOARD could be defective.
CONNECTOR X1 PCB A1 to X33 PCB A8

F4 ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem:
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
-The following CIRCUIT BOARDS could be defective:
PCB A1
PCB A3/1
-The RS232 CABLE between the MASTER PROCESSOR A1 and the CASSETTE INTERFACE BOARD could be defective.
CONNECTOR X1 PCB A1 to X33 PCB A8

F5 ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
-The following CIRCUIT BOARDS could be defective,
PCB A1
PCB A3/1
-The RS232 CABLE between the MASTER PROCESSOR A1 and the CASSETTE INTERFACE BOARD could be defective.
CONNECTOR X1 PCB A1 to X33 PCB A8

F6 ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
-The following CIRCUIT BOARDS could be defective,
PCB A1
PCB A3/1
-The RS232 CABLE between the MASTER PROCESSOR A1 and the CASSETTE INTERFACE BOARD could be defective.
CONNECTOR X1 PCB A1 to X33 PCB A8

F7 ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
-The following CIRCUIT BOARDS could be defective,
PCB A1
PCB A3/1
-The RS232 CABLE between the MASTER PROCESSOR A1 and the CASSETTE INTERFACE BOARD could be defective.
CONNECTOR X1 PCB A1 to X33 PCB A8

F8 ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

F9 ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

FA ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

A software communication error occurred.
-Press CLEAR and start again.

FD ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem:
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
-The following CIRCUIT BOARDS could be defective.
PCB A1
PCB A3/1
-The RS232 CABLE between the MASTER PROCESSOR A1 and the CASSETTE INTERFACE BOARD could be defective.
CONNECTOR X1 PCB A1 to X33 PCB A8

FE ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
-The following CIRCUIT BOARDS could be defective.
PCB A1
PCB A3/1

-The RS232 CABLE between the MASTER PROCESSOR A1 and the CASSETTE INTERFACE BOARD could be defective.
CONNECTOR X1 PCB A1 to X33 PCB A8

FF ERROR CODE OF CASSETTE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE-TASK

PROBLEM:

-CES set the ML300 to the inoperative mode.

5. ERROR CODES MAGAZINE UNIT

00 ERROR CODE OF MAGAZINE TASK

FUNCTION:

PROBLEM:

The magazine task has no error.

90 ERROR CODE OF MAGAZINE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

The MAGAZINE TASK is not in HOME POSITION.

CAUSE:

The status of one of the following SENSORS is wrong, or the position of the FILM POCKET is unknown.
-Start the SENSOR TEST and check the status of the following SENSORS:

- B36/M_OP_EO..... MAGAZINE OPENING END SWITCH ..... OFF
- B37/M_OP_EC..... MAGAZINE CLOSING END SWITCH ..... ON
- B56/M_PU_EF ..... FILM PICK UP END SWITCH FRONT..... OFF
- B57/M_PU_M..... FILM PICK UP MIDDLE POSITION ..... OFF
- B58/M_PU_ER..... FILM PICK UP END SWITCH REAR..... ON

NOTE

The SENSORS of the CASSETTE SUCKER BAR CARRIAGE are very sensitive to room light. If the covers are off, a RESET may be automatically started. Therefore make sure that no bright light reaches the SENSORS.

91 ERROR CODE OF MAGAZINE TASK

FUNCTION: SCAN MAGAZINE CODES

PROBLEM:

An incorrect MAGAZINE CODE is read.

CAUSE 1:

-A MAGAZINE with an invalid CODE is inserted.

CAUSE 2:

-MAGAZINE SENSE CIRCUIT BOARD A6/1, A6/2 or A6/3 is defective.

92 ERROR CODE OF MAGAZINE TASK

FUNCTION: MOVE POCKET TO HOME POSITION

PROBLEM:

The MAGAZINE SUCKER BAR is not in the MID POSITION.

CAUSE 1:

MAGAZINE SUCKER BAR is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 2:

SENSOR B56/M_PU_EF or B57/M_PU_M or B58/M_PU_ER is defective. These 3 SENSORS are mounted on CIRCUIT BOARD A5.

-Enter the SERVICE MODE.

-Start the SENSOR TEST.

-Find out which SENSOR is faulty.

-Trace the Output from the faulty SENSOR through CIRCUIT BOARDS A5 and A4 to the SLAVE PROCESSOR A3/2.

-Replace the faulty component.

CAUSE 3:

The FILMPOCKET TIMING DISKS are out of adjustment.

-Do the ADJUSTMENT PROCEDURE.

93 ERROR CODE OF MAGAZINE TASK

FUNCTION: MOVE POCKET TO HOME POSITION

PROBLEM:

The FILMPOCKET did not reach the HOME POSITION and a time-out occurred.

CAUSE 1:

STEPPER MOTOR M10/M_PO FILMPOCKET is not running.

-Check the following voltages on CIRCUIT BOARD A4 Sheet 5:

-Vcc + 5 V

-VPE12 + 5 V

-VPE40 + 30 V

-Enter the SERVICE MODE.

-Start the STEPPER MOTOR.

-Transport the FILMPOCKET with the DIAGNOSTICS PROGRAM to various LEVELS.

-If it does not move correctly the problem may be caused by:

- a faulty STEPPER MOTOR
- a faulty CIRCUIT BOARD A4
- a faulty SLAVE PROCESSOR CIRCUIT BOARD A3/2

CAUSE 2:

The FILMPOCKET is mechanically blocked.

-Remove the mechanical obstruction.

CAUSE 3:

SENSOR B30/M_PO_HP HOME POSITION is defective.

-Enter the SERVICE MODE.

-Start the SENSOR TEST.

-Manually actuate SENSOR B30.

-Trace its output on CIRCUIT BOARD A4 Sheet 1.

94 ERROR CODE OF MAGAZINE TASK

FUNCTION: OPEN MAGAZINES

PROBLEM:

SENSOR B36/M_OP_ED MAGAZINE OPENING END SWITCH is not actuated.

CAUSE 1:

SENSOR B36/M_OP_EO MAGAZINE OPENING END SWITCH defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B36.
-Trace output signal on CIRCUIT BOARD A4 Sheet 2.
-Replace the faulty component.

CAUSE 2:

115 VAC missing at CIRCUIT BOARD A4.
-Check with a DVM for 115 VAC at CONNECTOR A4X28 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 3:

MOTOR M14/M_OP MAGAZINE OPENING MECHANISM is not running.
-Enter the SENSOR MODE.
-Start the MOTOR MAGAZINE OPENING to open the MAGAZINES.
-Trace the signal M_M_OP_O open on CIRCUIT BOARD A4 Sheet 7.
-Replace the faulty component.

CAUSE 4:

The MAGAZINE is defective.

CAUSE 5:

There is a mechanical defect.

95 ERROR CODE OF MAGAZINE TASK

FUNCTION: MOVE POCKET TO MOVE OUT_POSITION IN THE MAGAZINE

PROBLEM:

The FILMPOCKET did not reach the “MOVE OUT POSITION IN THE MAGAZINE” in the correct time and a time-out occurred.

CAUSE 1:

STEPPER MOTOR M10/M_PO FILMPOCKET is not running.
-Check the following voltages on CIRCUIT BOARD A4 Sheet 5:

- Vcc + 5 V
- VPE12 + 5 V
- VPE40 + 30 V

-Enter the SERVICE MODE.
-Start the STEPPER MOTOR.
-Move the FILMPOCKET with the DIAGNOSTICS PROGRAM to various LEVELS.
-If it does not move correctly the problem may be caused by

- a faulty STEPPER MOTOR

- a faulty CIRCUIT BOARD A4
- a faulty SLAVE PROCESSOR CIRCUIT BOARD A3/2

CAUSE 2:

The FILMPOCKET is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 3:

SENSOR B32/M_PO_ML MAGAZINE LEVEL is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B32.
-Trace its output signal on CIRCUIT BOARD A4 Sheet 1.
-Replace the faulty component.

CAUSE 4:

There is a mechanical defect.

96 ERROR CODE OF MAGAZINE TASK

FUNCTION: MOVE POCKET TO A MAGAZINE LEVEL

PROBLEM:

The FILMPOCKET did not reach the SELECTED MAGAZINE LEVEL in the correct time and a time-out occurred.

CAUSE 1:

STEPPER MOTOR M10/M_PO FILMPOCKET is not running.
-Check the following voltages on CIRCUIT BOARD A4 Sheet 5:

- Vcc + 5 V
- VPE12 + 5 V
- VPE40 + 30 V

-Enter the SERVICE MODE.
-Start the STEPPER MOTOR.
-Move the FILMPOCKET to various Levels.
If it does not move correctly the problem may be caused by a faulty STEPPER MOTOR a faulty CIRCUIT BOARD A4 a faulty SLAVE PROCESSOR CIRCUIT BOARD A3/2

CAUSE 2:

The FILMPOCKET is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 3:

SENSOR B32/M_PO_ML MAGAZINE LEVEL is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B32.
-Trace its output SIGNAL on CIRCUIT BOARD A4 Sheet 1.
-Replace the faulty component.

97 ERROR CODE OF MAGAZINE TASK

FUNCTION: MOVE POCKET TO A MAGAZINE LEVEL

PROBLEM:

The actual position of the FILM POCKET is unknown.

CAUSE 1:

A cycle was aborted before the FILM POCKET reached a known position. If now the same function is started, this problem will occur. In this case the FILMPOCKET is brought back to its HOME POSITION.

98 ERROR CODE OF MAGAZINE TASK

FUNCTION: MOVE POCKET TO A MAGAZINE LEVEL

PROBLEM:

The FILMPOCKET reached the END SWITCH but not the CASSETTE LEVEL.

CAUSE 1:

Adjustment of SENSOR B31/M_PO_ES (END SWITCH) in relation to SENSOR B32/M_PO_ML (MAGAZINE LEVEL) is not correct. This means B31 became actuated before B32.

-Adjust the MAGAZINE LEVELS and the UPPER/LOWER END POSITION. Sensor B31 must be actuated after SENSOR B32.

CAUSE 2:

SENSOR B31/M_PO_ES END SWITCH defective.

-Enter the SERVICE MODE.

-Start the SENSOR TEST.

-Manually actuate the SENSOR B31.

-Trace the output signal of SENSOR B31 from CIRCUIT BOARD A5 through A4 Sheet 1.

-Replace the faulty component.

CAUSE 3:

SENSOR B32/M_PO_ML MAGAZINE LEVEL is defective.

-Enter the SERVICE MODE.

-Start the SENSOR TEST.

-Manually actuate the SENSOR B32.

-Trace the output signal of SENSOR B32 from CIRCUIT BOARD A5 through A4 sheet 1.

-Replace the faulty component.

CAUSE 4:

Wrong values are stored in the MEMORY.

Do a FILMPOCKET SCAN RUN.

99 ERROR CODE OF MAGAZINE TASK

FUNCTION: MOVE POCKET TO A MAGAZINE LEVEL

PROBLEM:

The MAGAZINE SUCKER BAR is not in the MID POSITION.

CAUSE 1:

SENSOR B56/M_PU_EF or B57/M_PU_M or B58/M_PU_ER is defective. These 3 SENSORS are mounted on CIRCUIT BOARD A5.

-Enter the SERVICE MODE.

-Start the SENSOR TEST.
-Find out which SENSOR is faulty.
-Trace the Output from the faulty SENSOR through CIRCUIT BOARDS A5 and A4.
-Replace the faulty component.

CAUSE 2:

The FILMPOCKET TIMING DISKS are out of adjustment.
-Do the ADJUSTMENT PROCEDURE.

9A ERROR CODE OF MAGAZINE TASK

FUNCTION: MOVE POCKET SUCKER BAR TO FRONT POSITION

PROBLEM:

A loaded MAGAZINE is indicated as empty.

CAUSE 1:

The MAGAZINE is really empty.

CAUSE 2:

SENSOR B60/M_PU_E MAGAZINE EMPTY is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B60.
-Trace its output signal on CIRCUIT BOARD A4 Sheet 1.
-Replace the faulty component.

CAUSE 3:

The MIRROR in the FILMPOCKET is dirty.
-Clean the MIRROR.

CAUSE 4:

The SENSOR B30 adjustment is not correct.
-Do the ADJUSTMENT PROCEDURE.

9B ERROR CODE OF MAGAZINE TASK

FUNCTION: MOVE POCKET SUCKER BAR TO FRONT POSITION

PROBLEM:

The MAGAZINE SUCKER BAR did not reach the PICK UP POSITION and a time-out occurred.

CAUSE 1:

The problem is caused by EMI.
-Install modification 26 (PCB A5 use IC-ASSEMBLY for U1)

CAUSE 2:

The DOUBLE FILM DETECTION CABLE became engaged with the MAGAZINE EMPTY SENSOR.
-Route the CABLE, so that it can not interfere with the MAGAZINE EMPTY SENSOR.

CAUSE 3:

The FILMPOCKET TIMING DISKS are out of adjustment.
-Do the ADJUSTMENT PROCEDURE.

CAUSE 4:

The FILMPOCKET SUCKER BAR is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 5:

The FILMPOCKET is too high or too low.
-Adjust the position of the MAGAZINE LEVEL BRACKET.

CAUSE 6:

MAGAZINE SUCKER BAR is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 7:

115 VAC missing at CIRCUIT BOARD A4.
-Check with a DVM for 115 VAC at CONNECTOR A4X28 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 8:

MOTOR M15/M_PU MAGAZINE PICK UP is not running.
-Enter the SERVICE MODE.
-Start the MOTOR MAGAZINE PICK UP forward and reverse.
-Trace the signals M_M_PU_F (forward) and M_M_PU_R (reverse) on CIRCUIT BOARD A4 sheet 7.
-Replace the faulty component.

CAUSE 9:

SENSOR B56/M_PU_EF or B57/M_PU_M OR B58/M_PU_ER is defective. These 3
SENSORS are mounted on CIRCUIT BOARD A5.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Find out which SENSOR is faulty.
-Trace the Output from the faulty SENSOR through CIRCUIT BOARD A5 and A4.
-Replace the faulty component.

CAUSE 10:

The FILMPOCKET is mechanically blocked. For example by the BLOWPIPES.
-Remove the mechanical obstruction.

9C ERROR CODE OF MAGAZINE TASK

FUNCTION: MAGAZINE FILM PICK UP

PROBLEM:

The FILMPOCKET did not reach the “MOVE OUT POSITION IN THE MAGAZINE” in the correct time and a time-out occurred.

CAUSE 1

SENSOR B32/M_PO_ML MAGAZINE LEVEL is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B32.
-Trace its output signal on CIRCUIT BOARD A4 Sheet 1.
-Replace the faulty component.

CAUSE 2:

STEPPER MOTOR M10/M_PO FILMPOCKET is not running.
-Check the following voltages on CIRCUIT BOARD A4 Sheet 5:

- Vcc + 5 V
- VPE12 + 5 V
- VPE40 + 30 V

-Enter the SERVICE MODE.
-Start the STEPPER MOTOR.
-Move the FILMPOCKET to various Levels.
If it does not move correctly the problem may be caused by

- a faulty STEPPER MOTOR
- a faulty CIRCUIT BOARD A4
- a faulty SLAVE PROCESSOR CIRCUIT BOARD A3/2

CAUSE 3:

The FILMPOCKET is mechanically blocked.
-Remove the mechanical obstruction.

9D ERROR CODE OF MAGAZINE TASK

FUNCTION: MAGAZINE FILM PICK UP

PROBLEM:

The MAGAZINE SUCKER BAR is in the FILM PICK UP POSITION in the MAGAZINE but could not go deep enough to reach the FILM.

CAUSE 1:

The MAGAZINE SUCKER BAR did not tilt. In this case SENSOR B61/M_PU-FS FILM AT SUCKER BAR is not actuated when the top film is reached.
-Check if the SOLENOID CABLE is broken. Install modification 26.
-Check if the E-RING at the SOLENOID Y14 SUCKER BAR TILTING is broken.
Replace it if necessary.

CAUSE 2:

SENSOR B61/M_PU_FS FILM AT SUCKER BAR is out of adjustment. The SENSOR is not actuated when the top film is reached.
-Adjust SENSOR B61.

CAUSE 3:

The MAGAZINE SUCKER BAR is not tilted.
-Enter the SERVICE MODE.
-Turn on SOLENOID Y14/M_PU MAGAZINE SUCKER BAR TILTING.
-Trace SIGNAL Y_M_PU from CIRCUIT BOARD A4 sheet 6 to A4 sheet 1 and to A5 sheet 1 and 2.
-Replace the faulty component.

CAUSE 4:

MAGAZINE BLOWPIPES ride on the MAGAZINE.
-Do the FILM POCKET ADJUSTMENT.

CAUSE 5:

SENSOR B61/M_PU_FS FILM AT SUCKER BAR does not recognise the top FILM.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Trace the Output Signal of SENSOR B61 from CIRCUIT BOARD A5 through A4 Sheet 1.
-Check the RIBBON CABLE.

-Replace the faulty component.

CAUSE 6:

STEPPER MOTOR M10/M_PO FILMPOCKET is not running.
-Check the following voltages on CIRCUIT BOARD A4 Sheet 5:

- Vcc + 5 V
- VPE12 + 5 V
- VPE30 + 5 V

-Enter the SERVICE MODE.
-Start the STEPPER MOTOR.
-Move the FILMPOCKET to various LEVELS.
If it does not move correctly the problem may be caused by

- a faulty STEPPER MOTOR
- a faulty CIRCUIT BOARD A4
- a faulty SLAVE PROCESSOR CIRCUIT BOARD A3/2

9E ERROR CODE OF MAGAZINE TASK

FUNCTION: MAGAZINE FILM PICK UP

PROBLEM:

The FILM is still at the SUCKERS of the FILMPOCKET SUCKER BAR even after air was blown into the SUCKERS.

CAUSE 1:

The RIBBON CABLE is broken.

CAUSE 2:

The SUCKERS are tacky.
-Clean the SUCKERS.

CAUSE 3:

SENSOR B61/M_PU_FS FILM at SUCKER BAR is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B61.
-Trace its output signal on CIRCUIT BOARD A4 Sheet 1.

CAUSE 4:

115 VAC missing at CIRCUIT BOARD A4.
-Check with a DVM for 115 VAC at CONNECTOR A4X28 between PIN 1 and 4.
-If the voltage is missing check the following:

- FUSE F1 in the POWER SUPPLY.
- INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT PANEL are closed.

CAUSE 5:

COMPRESSOR M16/M_CP is not running.
-Enter the SERVICE MODE.
-Start the COMPRESSOR.
-Trace the signal M_M_CP on CIRCUIT BOARD A4 Sheet 7.
-Replace the faulty component.

CAUSE 6:

SOLENOID VALVE Y10/M_PU_BS MAGAZINE BLOW SUCKERS is not working.

-Enter the SERVICE MODE.
-Energise SOLENOID VALVE Y10.
-Trace the signal Y_M_PU_BS on CIRCUIT BOARD A4 Sheet 6.
-Replace the faulty component.

9F ERROR CODE OF MAGAZINE TASK

FUNCTION: MAGAZINE FILM PICK UP

PROBLEM:

The FILMPOCKET SUCKER BAR lost the FILM after it was picked up from the MAGAZINE.

CAUSE 1:

No vacuum available.
-Check for a leakage in the vacuum system. Check it for all positions of the FILM POCKET.
-Check SOLENOID Y12/M_PU_S MAGAZINE SUCKING for correct operation.

CAUSE 2:

The SUCKERS did not reach the top film in the MAGAZINE.
-Check the adjustment of SENSOR B61/M_PU_FS FILM AT SUCKER BAR.
-If necessary increase the value of PARAMETER ADDITIONAL STEPS. This ensures that the SUCKERS are pressed correctly onto the top film, so that the vacuum can be built up.

CAUSE 3:

SENSOR B61/M_PU_FS FILM AT SUCKER BAR does not recognise the FILM.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Trace the Output Signal of SENSOR B61 from CIRCUIT BOARD A5 through A4 Sheet 1.
-Check the RIBBON CABLE.
-Replace the faulty component.

CAUSE 4:

No airflow through the MAGAZINE BLOW PIPES.
-Clean the hole (slit) of the MAGAZINE BLOW PIPES.

CAUSE 5:

FILM lost due to high humidity.
Check the site.

CAUSE 6:

The VACUUM SYSTEM is not tight.
-Check for a leakage and replace the faulty parts.

CAUSE 7:

115 VAC missing at CIRCUIT BOARD A4.
-Check with a DVM for 115 VAC at CONNECTOR A4X28 between PIN 1 and 4.
-If the voltage is missing check the following:

- FUSE F1 in the POWER SUPPLY.
- INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT PANEL are closed.

CAUSE 8:

COMPRESSOR M16/M_CP is not running.
At this time M16 is used as a VACUUM PUMP.
-Enter the SERVICE MODE.

-Start the COMPRESSOR.
-Trace the signal M_M_CP on CIRCUIT BOARD A4 Sheet 7.
-Replace the faulty component.

CAUSE 9:

SOLENOID VALVE Y12/M_PU_S MAGAZINE SUCKING is defective.
-Enter the SERVICE MODE.
-Start the SOLENOID VALVE MAGAZINE SUCKING.
-Trace signal Y_M_PU_S on CIRCUIT BOARD A4 Sheet 6.
-Replace the faulty component.

CAUSE 10:

SOLENOID VALVE Y10/M_PU_BS MAGAZINE BLOW INTO SUCKERS is defective. If this SOLENOID is energised all the time or if it is mechanically defective and stays open, no VACUUM can be build up in the MAG. SUCKERS.
-Enter the SERVICE MODE.
-Turn on SOLENOID BLOW INTO SUCKERS.
-Trace signal Y_M_PU_BS on CIRCUIT BOARD A8 Sheet 6 to find out if Y10 stays energised all the time.
-Replace the faulty component.

CAUSE 11:

SENSOR B60/M_PU_E MAGAZINE EMPTY is defective. In this case the SUCKER BAR tries to pick up a FILM from an empty MAGAZINE.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B60.
-Trace its output signal on CIRCUIT BOARD A4 Sheet 1.
-Replace the faulty component.

A0 ERROR CODE OF MAGAZINE TASK

FUNCTION: MAGAZINE FILM PICK UP

PROBLEM:

A DOUBLE FILM CONDITION is recognised.

CAUSE 1:

Two FILMS in the MAGAZINE stick together.
-Fan the FILMS.

CAUSE 2:

The FILM in the MAGAZINE is not separated.
-Check that the BLOWPIPE POSITION is correct and that they are not clogged.
-If the position is too high or too low, the stream of air will not separate the FILMS.
-Do the BLOWPIPE adjustment.
-If the BLOWPIPE is clogged replace is.

CAUSE 3:

SENSOR B59/M_PU_DS DOUBLE SHEET DETECTOR is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B59.
-Trace its output on CIRCUIT BOARD A4 Sheet 1.
-Replace the faulty component.

CAUSE 4:

The DOUBLE FILM SENSOR is out of adjustment.
-Do the DOUBLE FILM SENSOR ADJUSTMENT.

A1 ERROR CODE OF MAGAZINE TASK

FUNCTION: MOVE POCKET SUCKER BAR TO REAR POSITION

PROBLEM:

The MAGAZINE SUCKER BAR did not reach the REAR POSITION and a time-out occurred.

CAUSE 1:

The FILMPOCKET TIMING DISKS are out of adjustment.
-Do the ADJUSTMENT PROCEDURE.

CAUSE 2:

There is a mechanical defect.

CAUSE 3:

MAGAZINE SUCKER BAR is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 4:

115 VAC missing at CIRCUIT BOARD A4.
-Check with a DVM for 115 VAC at CONNECTOR A4X28 between PIN 1 and 4.
-If the voltage is missing check the following:

- FUSE F1 in the POWER SUPPLY.
- INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 5:

MOTOR M15/M_PU MAGAZINE PICK UP is not running.
-Enter the SERVICE MODE.
-Start the MOTOR MAGAZINE PICK UP forward and reverse.
-Trace the signals M_M_PU_F (forward) and M_M_PU_R (reverse) on CIRCUIT BOARD A4 Sheet 7.
-Replace the faulty component.

CAUSE 6:

SENSOR B58/M_PU_ER FILM PICK UP REAR END SWITCH is defective. This SENSORS is mounted on CIRCUIT BOARD A5.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B58.
-Trace its output signal through CIRCUIT BOARDS A5 and A4.
-Replace the faulty component.

A2 ERROR CODE OF MAGAZINE TASK

FUNCTION: MOVE POCKET SUCKER BAR TO MIDDLE POSITION

PROBLEM:

The MAGAZINE SUCKER BAR did not reach the PICK UP POSITION and a time-out occurred.

CAUSE 1:

SENSOR B57/M_PU_M is defective. This SENSOR is mounted on CIRCUIT BOARD A5.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B57.
-Trace its output signal through CIRCUIT BOARDS A5 and A4.
-Replace the faulty component.

CAUSE 2:

MAGAZINE SUCKER BAR is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 3:

115 VAC missing at CIRCUIT BOARD A4.
-Check with a DVM for 115 VAC at CONNECTOR A4X28 between PIN 1 and 4.
-If the voltage is missing check the following:

- FUSE F1 in the POWER SUPPLY.
- INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 4:

MOTOR M15/M_PU MAGAZINE PICK UP is not running.
-Enter the SERVICE MODE.
-Start the MOTOR MAGAZINE PICK UP forward and reverse.
-Trace the signals M_M_PU_F (forward) and M_M_PU_R (reverse) on CIRCUIT BOARD A4 Sheet 7.
-Replace the faulty component.

CAUSE 5:

The FILMPOCKET TIMING DISKS are out of adjustment.
-Do the ADJUSTMENT PROCEDURE.

A3 ERROR CODE OF MAGAZINE TASK

FUNCTION: MAGAZINE CLOSING

PROBLEM:

SENSOR B36/M_OP_ED MAGAZINE OPENING END SWITCH is not actuated.

CAUSE 1:

SENSOR B37 /M_OP_EC MAGAZINE CLOSING END SWITCH defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B37.
-Trace the output from SENSOR B37 on CIRCUIT BOARD A4 Sheet 2.
-Replace the faulty component.

CAUSE 2:

115 VAC missing at CIRCUIT BOARD A4.
-Check with a DVM for 115 VAC at CONNECTOR A4X28 between PIN 1 and 4.
-If the voltage is missing check the following:
FUSE F1 in the POWER SUPPLY.
INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 3:

MOTOR M14/M_OP MAGAZINE OPENING MECHANISM is not running.
-Enter the SERVICE MODE.
-Start the MOTOR MAGAZINE OPENING to open the MAGAZINES.
-Trace the signal M_M_OP_O Open on CIRCUIT BOARD A4 Sheet 7.
-Replace the faulty component.

A4 ERROR CODE OF MAGAZINE TASK

FUNCTION: BLOW DOWN FILM

PROBLEM:

The FILM is still at the SUCKERS of the FILMPOCKET SUCKER BAR even after air was blown into the SUCKERS.

CAUSE 1:

No air is blown through the SUCKERS.
-Take out the blue SCREW from SOLENOID VALVE Y10/M_PU_BS MAGAZINE BLOW
SUCKER and run a few cycles with the SCREW out. It is possible that small particles are in the SOLENOID VALVE and they are blown out during a few cycles without the blue SCREW. Insert the SCREW.

CAUSE 2:

SOLENOID VALVE Y10/M_PU_BS MAGAZINE BLOW SUCKERS is not working.
-Enter the SERVICE MODE.
-Energise SOLENOID VALVE Y10.
-Trace the signal Y_M_PU_BS on CIRCUIT BOARD A4 Sheet 6.
-Replace the faulty component.

CAUSE 3:

The SUCKERS are tacky.
-Clean the SUCKERS.

A5 ERROR CODE OF MAGAZINE TASK

FUNCTION: MOVE POCKET SUCKER BAR TO MIDDLE POSITION

PROBLEM:

The MAGAZINE SUCKER BAR did not reach the MIDDLE POSITION and a time-out occurred.

CAUSE 1:

SENSOR B57/M_PU_M is defective. This SENSOR is mounted on CIRCUIT BOARD A5.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B57.
-Trace its output signal through CIRCUIT BOARDS A5 and A4.
-Replace the faulty component.

CAUSE 2:

MAGAZINE SUCKER BAR is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 3:

115 VAC missing at CIRCUIT BOARD A4.
-Check with a DVM for 115 VAC at CONNECTOR A4X28 between PIN 1 and 4.

-If the voltage is missing check the following:

- FUSE F1 in the POWER SUPPLY.
- INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 4:

MOTOR M15/M_PU MAGAZINE PICK UP is not running.
-Enter the SERVICE MODE.
-Start the MOTOR MAGAZINE PICK UP forward and reverse.
-Trace the signals M_M_PU_F (forward) and M_M_PU_R (reverse) on CIRCUIT BOARD A4 Sheet 7.
-Replace the faulty component.

CAUSE 5:

The FILMPOCKET TIMING DISKS are out of adjustment.
-Do the ADJUSTMENT PROCEDURE.

A6 ERROR CODE OF MAGAZINE TASK

FUNCTION: BLOW DOWN FILM

PROBLEM:

The fresh FILM was picked up in the MAGAZINE, but it was not at the MAGAZINE SUCKERS when the FILM POCKET reached the CASSETTE.

CAUSE 1:

The Film was stripped of from the SUCKERS when it was pulled out of the MAGAZINE.

CAUSE 2:

Sensor B61/M_PU_FS is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate the SENSOR B61.
-Trace the output signal of SENSOR B61 from CIRCUIT BOARD A5 through A4 Sheet 1.
-Replace the faulty component.

AE ERROR CODE OF MAGAZINE TASK

FUNCTION: MOVE POCKET TO HOME POSITION

PROBLEM:

The FILMPOCKET reached the END SWITCH but not the CASSETTE LEVEL.

CAUSE 1:

Adjustment of SENSOR B31/M_PO_ES (END SWITCH) in relation to SENSOR B32/M_PO_ML (MAGAZINE LEVEL) is not correct. This means B31 became actuated before B32.
-Adjust the MAGAZINE LEVELS and the UPPER/LOWER END POSITION. Sensor B31 must be actuated after SENSOR B32.

CAUSE 2:

SENSOR B31/M_PO_ES END SWITCH defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.

-Manually actuate the SENSOR B31.
-Trace the output signal of SENSOR B31 from CIRCUIT BOARD A5 through A4 Sheet 1.
-Replace the faulty component.

CAUSE 3:

SENSOR B32/M_PO_ML MAGAZINE LEVEL is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate the SENSOR B32.
-Trace the output signal of SENSOR B32 from CIRCUIT BOARD A5 through A4 sheet 1.
-Replace the faulty component.

CAUSE 4:

Wrong values are stored in the MEMORY.
Do a FILMPOCKET SCAN RUN.

B0 ERROR CODE OF MAGAZINE TASK

FUNCTION: POCKET SCAN RUN

PROBLEM:

This problem can only occur in the SERVICE MODE after a SCAN RUN. In this case an invalid valve for a MAGAZINE LEVEL was detected.

CAUSE 1:

The LEVEL BRACKETS are in the wrong position.
-Do the MAGAZINE LEVEL ADJUSTMENT.

CAUSE 2:

SENSOR B32/M_PO_ML MAGAZINE LEVEL does not detect all MAGAZINE LEVELS.
-Make sure that the LEVEL BRACKETS interrupt Sensor B32.

CAUSE 3:

SENSOR B32/M_PO_ML MAGAZINE LEVEL is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Trace the output signal of SENSOR B32 from CIRCUIT BOARD A7 through PCB A5 and PCB A4 Sheet 1.
-Replace the faulty component.

B1 ERROR CODE OF MAGAZINE TASK

FUNCTION: POCKET SCAN RUN

PROBLEM:

A FILMPOCKET time-out occurred during the FILMPOCKET SCAN RUN.

CAUSE 1:

SENSOR B32/M_PO_ML MAGAZINE LEVEL is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B32.
-Trace its output signal on CIRCUIT BOARD A4 Sheet 1.
-Replace the faulty component.

CAUSE 2:

STEPPER MOTOR M10/M_PO FILMPOCKET is not running.
-Check the following voltages on CIRCUIT BOARD A4 Sheet 5:

- Vcc + 5 V
- VEP12 + 5 V
- VPE40 + 30 V

-Enter the SERVICE MODE.
-Start the STEPPER MOTOR.
-Move the FILMPOCKET to various levels.
If it does not move correctly the problem may be caused by

- a faulty STEPPER MOTOR
- a faulty CIRCUIT BOARD A4
- a faulty SLAVE PROCESSOR CIRCUIT BOARD A3/2

CAUSE 3:

The FILMPOCKET is mechanically blocked.
-Remove the mechanical obstruction.

B2 ERROR CODE OF MAGAZINE TASK

FUNCTION: POCKET SCAN RUN

PROBLEM:

False indication of FILMPOCKET END SWITCH REACHED. This problem occurs only during the SCAN RUN of the FILMPOCKET.

CAUSE 1:

SENSOR B31/M_PO_ES END SWITCH is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B31.
-Trace its output signal on CIRCUIT BOARD A7, A5 and A4 Sheet 1.
-Replace the faulty component.

CAUSE 2:

SENSOR B32/M_PO_ML END SWITCH is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B32.
-Trace its output signal on CIRCUIT BOARD A7, A5 and A4 Sheet 1.
-Replace the faulty component.

CAUSE 3:

The MAGAZINE LEVEL BRACKETS are out of adjustment.
Do the MAGAZINE LEVEL ADJUSTMENT.

B3 ERROR CODE OF MAGAZINE TASK

FUNCTION: POCKET SCAN RUN

PROBLEM:

The MAGAZINE SUCKER BAR is not in the MID POSITION.

CAUSE 1:

MAGAZINE SUCKER BAR is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 2:

SENSOR B57/M_PU_M is defective. This SENSOR is mounted on CIRCUIT BOARD A5.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B57.
-Trace its output signal through CIRCUIT BOARD A5 and A4.
-Replace the faulty component.

CAUSE 3:

The FILMPOCKET TIMING DISKS are out of adjustment.
-Do the ADJUSTMENT PROCEDURE.

B4 ERROR CODE OF MAGAZINE TASK

FUNCTION: CHECK OF NEARLY EMPTY

PROBLEM:

During the CHECK OF NEARLY EMPTY a FILMPOCKET TIME-OUT occurred.

CAUSE 1:

STEPPER MOTOR M10/M_PO FILMPOCKET is not running.
-Check the following voltages on CIRCUIT BOARD A4 Sheet 5:

- Vcc + 5 V
- VPE12 + 5 V
- VPE40 + 30 V

-Enter the SERVICE MODE.
-Start the STEPPER MOTOR.
-Move the FILMPOCKET to various LEVELS.
-If it does not move correctly the problem may be caused by

- a faulty STEPPER MOTOR
- a faulty CIRCUIT BOARD A4
- a faulty SLAVE PROCESSOR CIRCUIT BOARD A3/2

CAUSE 2:

The FILMPOCKET is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 3:

SENSOR B32/M_PO_ML MAGAZINE LEVEL is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B32.
-Trace its output signal on CIRCUIT BOARD A4 Sheet 1.

B5 ERROR CODE OF MAGAZINE TASK

FUNCTION: CHECK OF NEARLY EMPTY

PROBLEM:

The FILMPOCKET did not reach the "MOVE OUT POSITION IN THE MAGAZINE" in the correct time and a time-out occurred.

CAUSE 1:

STEPPER MOTOR M10/M_PO FILMPOCKET is not running.
-Check the following voltages on CIRCUIT BOARD A4 Sheet 5:

- Vcc + 5 V
- VPE12 + 5 V
- VPE40 + 30 V

-Enter the SERVICE MODE.
-Start the STEPPER MOTOR.
-Move the FILMPOCKET to various LEVELS.
If it does not move correctly the problem may be caused by

- a faulty STEPPER MOTOR
- a faulty CIRCUIT BOARD A4
- a faulty SLAVE PROCESSOR CIRCUIT BOARD A3/2

CAUSE 2:

The FILMPOCKET is mechanically blocked.
-Remove the mechanical obstruction.

CAUSE 3:

SENSOR B32/M_PO_ML MAGAZINE LEVEL is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B32.
-Trace its output signal on CIRCUIT BOARD A4 Sheet 1.
-Replace the faulty component.

B6 ERROR CODE OF MAGAZINE TASK

FUNCTION: CHECK OF NEARLY EMPTY

PROBLEM:

During the "TEST OF NEARLY EMPTY" in the SERVICE MODE, the MAGAZINE is indicated as loaded.

CAUSE 1:

Use an empty MAGAZINE. It is not allowed to use for this test a loaded MAGAZINE.

CAUSE 2:

SENSOR B60/M_PU_E MAGAZINE EMPTY is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B60.
-Trace its output signal through CIRCUIT BOARD A5 and PCB A4 Sheet 1.
-Replace the faulty components.

CAUSE 3:

The MAGAZINE SUCKER BAR is in the wrong position.

B7 ERROR CODE OF MAGAZINE TASK

FUNCTION: MOVE POCKET DOWN TO FILM

PROBLEM:

The MAGAZINE SUCKER BAR is in the FILM PICK UP POSITION in the MAGAZINE but could not go deep enough to reach the FILM.

CAUSE 1:

MAGAZINE BLOWPIPES ride on the MAGAZINE.
-Do the FILM POCKET ADJUSTMENT.

CAUSE 2:

SENSOR B61/M_PU_FS FILM AT SUCKER BAR not recognise the top FILM.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Trace the output signal of SENSOR B61 from CIRCUIT BOARD A5 throughPCB A4 Sheet 1.
-Check the RIBBON CABLE.
-Replace the faulty component.

CAUSE 3:

STEPPER MOTOR M10/M_PO FILMPOCKET is not running.
-Check the following voltages on CIRCUIT BOARD A4 Sheet 5:

- Vcc + 5 V
- VPE12 + 5 V
- VPE30 + 30 V

-Enter the SERVICE MODE.
-Start the STEPPER MOTOR.
-Move the FILMPOCKET to various LEVELS.

- If it does not move correctly the problem may be caused by
- a faulty STEPPER MOTOR or its DRIVER BOARD A4
- a faulty SLAVE PROCESSOR CIRCUIT BOARD A3/2

C1 ERROR CODE OF MAGAZINE TASK

FUNCTION: ERRORS DURING CYCLE.

PROBLEM:

A time-out occurred during BLOW INTO CASSETTE.

CAUSE:

This is a SOFTWARE PROBLEM. Another problem occurred before in the CASSETTE UNIT.

C2 ERROR CODE OF MAGAZINE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

There is no MAGAZINE available for the detected CASSETTE SIZE.

CAUSE 1:

The desired MAGAZINE is not in.
-Insert the requested MAGAZINE and explain it to the operator.

CAUSE 2:

False detection of a TYPE 2 CASSETTE.
-Adjust the TYPE 2 SENSORS B21/C_T2_L and B22/C_T2_R. Ensure that they are not triggered by a CASSETTE without reflective stickers.

CAUSE 3:

The reflective stickers (for TYPE 2) on the CASSETTE are not recognised by the TYPE 2 SENSORS B21//C_T2_L or B22/C_T2/R.
-Adjust the TYPE 2 SENSORS.

C3 ERROR CODE OF MAGAZINE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

Selected MAGAZINE is empty.

CAUSE 1:

The MAGAZINE is empty.
-Explain the operator how to use NEARLY EMPTY.

CAUSE 2:

MAGAZINE is not empty.
-Adjust SENSOR B60/M_PU_E MAGAZINE EMPTY. SENSOR B60 and MIRROR in the FILM POCKET has to be aligned correctly, so that the infrared beam points to the centre of the reflective sticker in the MAGAZINE.

C4 ERROR CODE OF MAGAZINE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

MAGAZINE is not opened.

CAUSE 1:

The MAGAZINE is not inserted correctly.

CAUSE 2:

There is a mechanical defect.

CAUSE 3:

MAGAZINE CLOSED DETECTOR B43/M_CD_1 or B49/M_CD_2 or B55/M_CD_3 is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate the SENSOR of the selected MAGAZINE.

-Trace its output signal through CIRCUIT BOARD A6 and A4 sheet 3.
-Replace the faulty component.

C5 ERROR CODE OF MAGAZINE TASK

FUNCTION: ERRORS DURING CYCLE.

PROBLEM:

A time-out occurred during BLOW INTO CASSETTE.

CAUSE:

This is a SOFTWARE PROBLEM. Another problem occurred before in the CASSETTE UNIT.

C6 ERROR CODE OF MAGAZINE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

A DOUBLE FILM is 3 times detected in a cycle.

CAUSE 1:

FILMS stick together in the MAGAZINE.
-Riffle the FILMS.

CAUSE 2:

Water was blown between the films.
-Install modification 20.

CAUSE 3:

PROBLEMS WITH THE MAGAZINE BLOW PIPES
-Check that the BLOW PIPES are not clogged.. Clean the hole (slit).
-Check the BLOW PIPE position in relation to the MAGAZINE SUCKERS. Adjust them if necessary.

C7 ERROR CODE OF MAGAZINE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

A time-out occurred and the FILM is not removed from the CASSETTE.

CAUSE 1:

This is a SOFTWARE PROBLEM. Another problem occurred earlier in the CASSETTE UNIT.

C8 ERROR CODE OF MAGAZINE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

The SERIAL UNLOAD MAGAZINE LEVEL is not reached.

CAUSE 1:

There is a mechanical problem.

C9 ERROR CODE OF MAGAZINE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

The MAGAZINE COVER is not closed.

CAUSE 1:

The MAGAZINE is blocked by FILMS.
-Put the FILMS correctly into the MAGAZINE.

CAUSE 2:

SENSOR B43/M_CD_1 or B49/M_CD_2 or B55/M_CD_3 is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate the SENSOR of the selected MAGAZINE.
-Trace its output signal through CIRCUIT BOARD A6 and A4 sheet 3.
-Replace the faulty component.

CAUSE 3:

SENSOR B37/M_PO_EC MAGAZINE CLOSING is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B37.
-Trace its output signal on CIRCUIT BOARD A4 sheet 2.
-Replace the faulty component.

D0 ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

The SYSTEM-TASK received a wrong ID number.

CAUSE 1:

A software problem occurred.
-Press CLEAR and start again.

CAUSE 2:

The POWER SUPPLY is defective. Check in addition the voltages on CIRCUIT BOARDS A1, A3/1 and A3/2.

D2 ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

D3 ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

D4 ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

The left-hand Switch S1 on PCB A4 is set to ON, but PCB A12 (for DFF) is not installed. In this case S1 must be set to OFF. Look for the imprint on S1, some switches are mounted upside down on the PCB and therefore in some cases OFF may be the up position and in some cases OFF may be the down position.

D5 ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

D7 ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE TASK (only in sw below vers. 3.1)

PROBLEM:

An invalid FILM SIZE is detected.

CAUSE 1:

The CASSETTE orientation is not correct. (turned by 90 degrees)

CAUSE 2:

The ODOMETER A10/1 or A10/2 outputs a wrong amount of pulses.

D9 ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE TASK

PROBLEM:

The OPERATING SOFTWARE is not loaded completely.
Reload the complete OPERATING SOFTWARE with the LAP TOP.

DA ERROR CODE OF MAGAZINE TASK

FUNCTION: ERRORS DURING CYCLE

PROBLEM:

The MAGAZINE COVER is not closed at startup of the ML300.

CAUSE 1:

The MAGAZINE is blocked by FILMS.
-Put the FILMS correctly into the MAGAZINE.

CAUSE 2:

SENSOR B43/M_CD_1 or B49/M_CD_2 or B55/M_CD_3 is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate the SENSOR of the selected MAGAZINE.
-Trace its output signal through CIRCUIT BOARD A6 and A4 sheet 3.
-Replace the faulty component.

CAUSE 3:

SENSOR B37/M_PO_EC MAGAZINE CLOSING is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B37.
-Trace its output signal on CIRCUIT BOARD A4 sheet 2.
-Replace the faulty component.

DB ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE TASK

PROBLEM:

The SOFTWARE VERSION of the MASTER PROCESSOR is not compatible with the SOFTWARE VERSION of the SLAVE PROCESSOR MAGAZINE TASK.

CAUSE 1:

The SOFTWARE is not loaded correctly.
Reload the OPERATING SOFTWARE of the XML300.

CAUSE 2:

PCB A1 (MASTER PROCESSOR) or PCB A3/2 (SLAVE PROCESSOR MAGAZINE TASK) is defective.
-Replace the faulty PCB and reload the OPERATING SOFTWARE.

DC ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

A software communication error occurred.
-Press CLEAR and start again.

DF ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF CASSETTE TASK

PROBLEM:

The TOP COVER of the ML300 is not closed.

CAUSE 1:

The TOP COVER is not engaged properly.

CAUSE 2:

The ACTUATOR of the TOP COVER INTERLOCK is not adjusted correctly.
Adjust the ACTUATOR that SENSOR B23/C_TCI is actuated safely.

CAUSE 3:

SENSOR B23/C_TCI TOP COVER INTERLOCK is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B23.
-Trace its output signal on CIRCUIT BOARD A8 sheet 4.
-Replace the faulty component.

F0 ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

F1 ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

This is a HARDWARE communication problem.

CAUSE 1:

HARDWARE problem:
The following CIRCUIT BOARDS could be defective,

- PCB A1
- PCB A3/2
- The RS232 CABLE between the MASTER PROCESSOR A1 and the MAGAZINE INTERFACE
- BOARD could be defective.
- CONNECTOR X2 PCB A1 to X29 PCB A4

F2 ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

F3 ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem:
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
The following CIRCUIT BOARDS could be defective,

- PCB A1
- PCB A3/2
- The RS232 CABLE between the MASTER PROCESSOR A1 and the MAGAZINE INTERFACE
- BOARD could be defective.
- CONNECTOR X2 PCB A1 to X29 PCB A4

F4 ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem:
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
The following CIRCUIT BOARDS could be defective,

- PCB A1
- PCB A3/2
- The RS232 CABLE between the MASTER PROCESSOR A1 and the MAGAZINE INTERFACE
- BOARD could be defective.
- CONNECTOR X2 PCB A1 to X29 PCB A4

F5 ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem:
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
The following CIRCUIT BOARDS could be defective,

- PCB A1
- PCB A3/2
- The RS232 CABLE between the MASTER PROCESSOR A1 and the MAGAZINE INTERFACE
- BOARD could be defective.
- CONNECTOR X2 PCB A1 to X29 PCB A4

F6 ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem:
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
The following CIRCUIT BOARDS could be defective,

- PCB A1
- PCB A3/2
- The RS232 CABLE between the MASTER PROCESSOR A1 and the MAGAZINE INTERFACE
- BOARD could be defective.
- CONNECTOR X2 PCB A1 to X29 PCB A4

F7 ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem:
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
The following CIRCUIT BOARDS could be defective,

- PCB A1
- PCB A3/2
- The RS232 CABLE between the MASTER PROCESSOR A1 and the MAGAZINE INTERFACE
- BOARD could be defective.
- CONNECTOR X2 PCB A1 to X29 PCB A4

F8 ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

F9 ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

FA ERROR CODE OF MAGAZINE TASK

PROBLEM:

A software communication error occured.
Reset the ML300 and start again.

FD ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem:
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
The following CIRCUIT BOARDS could be defective,

- PCB A1
- PCB A3/2
- The RS232 CABLE between the MASTER PROCESSOR A1 and the MAGAZINE INTERFACE
- BOARD could be defective.
- CONNECTOR X2 PCB A1 to X29 PCB A4

FE ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem:
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
The following CIRCUIT BOARDS could be defective,

- PCB A1
- PCB A3/2
- The RS232 CABLE between the MASTER PROCESSOR A1 and the MAGAZINE INTERFACE
- BOARD could be defective.
- CONNECTOR X2 PCB A1 to X29 PCB A4

FF ERROR CODE OF MAGAZINE TASK

FUNCTION: INTERNAL ERRORS OF MAGAZINE-TASK

PROBLEM:

CES set the ML300 to the inoperative mode.

6. ERROR CODES INTERFACE UNIT

00 ERROR CODE OF INTERFACE TASK

FUNCTION:

PROBLEM:

The interface task has no error.

C1 ERROR CODE OF INTERFACE TASK

FUNCTION: INTERFACE TASK

PROBLEM:

A FILM sticks at SENSOR B35/M_PI_B FILM IN INTERFACE BOTTOM in the FILM CHUTE. Usually error I-C1 is displayed after clearing a I-C2 or I-C3 error.

CAUSE 1:

There is a film jam.

CAUSE 2:

SENSOR B35/M_PI_B FILM IN INTERFACE BOTTOM is defective.

-Enter the SERVICE MODE.

-Start the SENSOR TEST.

-Manually actuate SENSOR B35.

-Trace its output signal on CIRCUIT BOARD A5 sheet 2.

-Replace the faulty component.

C2 ERROR CODE OF INTERFACE TASK

FUNCTION: FILM TO PROCESSOR

PROBLEM:

FILM LEADING EDGE not recognised in the FILM CHUTE by B35.

CAUSE 1:

The FILM is found in the FILM POCKET AREA. This problem is caused by a misadjusted INTERFACE FLAP. This means the INTERFACE FLAP is closed when it should be open.

-Check the adjustment of SENSOR B33/M_PI_F. The rib on the actuator wheel has to be vertical (plus maximum 5 degrees in direction of rotation) when the INTERFACE FLAP is closed.

CAUSE 2:

The exposed FILM is lost. This means after pressing CLEAR the FILM did not come out of the PROCESSOR. With the next cycle 2 FILMS come out of the PROCESSOR. This problem is caused by excessive mechanical play. The FILM RELEASE MOTOR may bounce back and SENSOR B34 gives the wrong signal.

-Install modification 26. Part of Mod 26 is a RESISTOR and a CAPACITOR. This RC-NETWORK extends the signal to the FILM RELEASE MOTOR M12.

CAUSE 3:

B35 SENSOR not working correctly.

C3 ERROR CODE OF INTERFACE TASK

FUNCTION: FILM TO PROCESSOR

PROBLEM:

The FILM TRAILING EDGE is not recognised in the FILM CHUTE.

CAUSE 1:

The TIMING BELT TENSION in the PROCESSOR INTERFACE is too high. This may slow down or even stop the STEPPER MOTOR PROCESSOR INTERFACE M13/M_PI.

-Reduce the TIMING BELT TENSION.

CAUSE 2:

One of the 2 free running ONE-WAY CLUTCHES in the PROCESSOR INTERFACE are assembled wrong. If you pull a FILM through the PROCESSOR INTERFACE in direction of the PROCESSOR the toothed BELT must not move. If it moves as you pull, one of the free running ONE-WAY CLUTCHES is assembled wrong.

-Replace the faulty CLUTCH.

CAUSE 3:

There is a FILM JAM in the PROCESSOR INTERFACE.

CAUSE 4:

SENSOR B35/M_PI_EO FILM IN INTERFACE BOTTOM defective.

-Enter the SERVICE MODE.

-Start the COMPONENT TEST.

-Manually actuate SENSOR B35.

-Trace its output signal on CIRCUIT BOARD A4 sheet 2.

-Replace the faulty component.

CAUSE 5:

MOTOR M13/M_PI STEPPER MOTOR PROCESSOR INTERFACE is not running.

-Enter the SERVICE MODE.

-Start the COMPONENT TEST.

-Start STEPPER MOTOR PROCESSOR INTERFACE.

-If the MOTOR is not running the problem could be caused by a faulty CIRCUIT BOARD A4 or A3 or by MOTOR M13.

-Solve the problem by replacing CIRCUIT BOARDS.

CAUSE 6:

The PROCESSOR has a malfunction.

-Do the PROCESSOR DIAGNOSTICS.

C4 ERROR CODE OF INTERFACE TASK

FUNCTION: CLOSE INTERFACE FLAP

PROBLEM:

The INTERFACE FLAP is not closed.

CAUSE 1:

SENSOR B33/M_PI_IF INTERFACE FLAP CLOSED END SWITCH is misadjusted.

- Adjust SENSOR B33/M_PI_F. The rib on the actuator wheel has to be vertical (plus maximum 5 degrees in direction of rotation) when the INTERFACE FLAP is closed.

CAUSE 2:

SENSOR B33/M_PI_F INTERFACE CLOSED is defective.

-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B33.
-Trace its output signal on CIRCUIT BOARD A4 sheet 2.
-Replace the faulty component.

CAUSE 3:

115 VAC missing at CIRCUIT BOARD A4.
-Check with a DVM for 115 VAC at CONNECTOR A4X28 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 4:

MOTOR M11/M_PI_F INTERFACE FLAP is not running.
-Enter the SERVICE MODE.
-Start the COMPONENT TEST.
-Start MOTOR INTERFACE FLAP.
-Trace SIGNAL M_M_PI_F on CIRCUIT BOARD A4 sheet 7.
-Replace the faulty component.

CAUSE 5:

There is a FILM JAM.

C5 ERROR CODE OF INTERFACE TASK

FUNCTION: CLOSE FILM RELEASE

PROBLEM:

The FILM RELEASE in the FILM CHUTE is not closed.

CAUSE 1:

The FILM is caught by the FILM RELEASE.
-Adjust the FILM RELEASE.

CAUSE 2:

SENSOR B34/M_PI_R FILM RELEASE CLOSED is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B34.
-Trace its output signal on CIRCUIT BOARD A4 sheet 2.
-Replace the faulty component.

CAUSE 3:

115 VAC missing at CIRCUIT BOARD A4.
-Check with a DVM for 115 VAC at CONNECTOR A4X28 between PIN 1 and 4.
-If the voltage is missing check the following:
-FUSE F1 in the POWER SUPPLY.
-INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 4:

MOTOR M12/M_PI_R FILM RELEASE is not running.

-Enter the SERVICE MODE.
-Start the COMPONENT TEST.
-Start MOTOR M12.
-Trace SIGNAL M_M_PI_R on CIRCUIT BOARD A4 sheet 7.
-Replace the faulty component.

C6 ERROR CODE OF INTERFACE TASK

FUNCTION: OPEN INTERFACE FLAP

PROBLEM:

The INTERFACE FLAP is not opened.

CAUSE 1:

SENSOR B33/M_PI_F INTERFACE FLAP CLOSED is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B33.
-Trace its output signal on CIRCUIT BOARD A4 sheet 2.
-Replace the faulty component.

CAUSE 2:

115 VAC missing at CIRCUIT BOARD A4.
-Check with a DVM for 115 VAC at CONNECTOR A4X28 between PIN 1 and 4.
-If the voltage is missing check the following:

- FUSE F1 in the POWER SUPPLY.
- INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when the TOP COVER and the FRONT DOOR are closed.

CAUSE 3:

MOTOR M11/M_PI_F is not running.
-Enter the SERVICE MODE.
-Start MOTOR FILM RELEASE.
-Trace the signal M_M_PI_R on CIRCUIT BOARD A4 sheet 7.
-Replace the faulty component.

CAUSE 4:

There is a mechanical defect.

C7 ERROR CODE OF INTERFACE TASK

FUNCTION: FILM RELEASE

PROBLEM:

The FILM RELEASE in the FILM CHUTE is still closed.

CAUSE 1:

SENSOR B34/M_PI_R FILM RELEASE CLOSED is defective.
-Enter the SERVICE MODE.
-Start the SENSOR TEST.
-Manually actuate SENSOR B34.
-Trace its output signal on CIRCUIT BOARD A4 sheet 2.
-Replace the faulty component.

CAUSE 2:

115 VAC missing on CIRCUIT BOARD A4.
-Check with a DVM for 115 VAC at CONNECTOR A4X28 between PIN 1 and 2.
-If the voltage is missing check the following:

- FUSE F1 in the POWER SUPPLY.
- INTERLOCK SYSTEM. RELAY K2 in the POWER SUPPLY will only be energised when
- the TOP COVER and the FRONT DOOR are closed.

CAUSE 3:

MOTOR M12/M_PI_R FILM RELEASE is not running.
-Enter the SERVICE MODE.
-Start MOTOR M12.
-Trace the signal M_M_PI_R on CIRCUIT BOARD A4 sheet 7.
-Replace the faulty component.

CAUSE 4:

There is a mechanical defect.

D1 ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

D2 ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

D3 ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

D4 ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.
-DIP SWITCH S1 on PCB A4 set incorrectly. See MAG-D4.

D5 ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

DC ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

A software communication error occurred.
-Press CLEAR and start again.

F0 ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

F1 ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem:
Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
The following CIRCUIT BOARDS could be defective,

- PCB A1
- PCB A3/2
- The RS232 CABLE between the MASTER PROCESSOR A1 and the MAGAZINE INTERFACE BOARD could be defective.
- CONNECTOR X2 PCB A1 to X29 PCB A4

F2 ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

F3 ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
Press CLEAR and start again.

CAUSE 2:

HARDWARE problem.
The following CIRCUIT BOARDS could be defective,

- PCB A1
- PCB A3/2
- The RS232 CABLE between the MASTER PROCESSOR A1 and the MAGAZINE INTERFACE BOARD could be defective.
- CONNECTOR X2 PCB A1 to X29 PCB A4

F4 ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem:
Press CLEAR and start again.

CAUSE 2:

HARDWARE problem:
The following CIRCUIT BOARDS could be defective,

- PCB A1
- PCB A3/2
- The RS232 CABLE between the MASTER PROCESSOR A1 and the MAGAZINE INTERFACE BOARD could be defective.
- CONNECTOR X2 PCB A1 to X29 PCB A4

F5 ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
Press CLEAR and start again.

CAUSE 2:

HARDWARE problem.
The following CIRCUIT BOARDS could be defective,

- PCB A1
- PCB A3/2
- The RS232 CABLE between the MASTER PROCESSOR A1 and the MAGAZINE INTERFACE BOARD could be defective.
- CONNECTOR X2 PCB A1 to X29 PCB A4

F6 ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
Press CLEAR and start again.

CAUSE 2:

HARDWARE problem.
The following CIRCUIT BOARDS could be defective,
PCB A1
PCB A3/2
The RS232 CABLE between the MASTER PROCESSOR A1 and the MAGAZINE INTERFACE BOARD could be defective.
CONNECTOR X2 PCB A1 to X29 PCB A4

F7 ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
Press CLEAR and start again.

CAUSE 2:

HARDWARE problem.
The following CIRCUIT BOARDS could be defective,

- PCB A1
- PCB A3/2
- The RS232 CABLE between the MASTER PROCESSOR A1 and the MAGAZINE INTERFACE BOARD could be defective.
- CONNECTOR X2 PCB A1 to X29 PCB A4

F8 ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

F9 ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

FA ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE TASK

PROBLEM:

A software communication error occurred.
Press CLEAR and start again.

FD ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
Press CLEAR and start again.

CAUSE 2:

HARDWARE problem.
The following CIRCUIT BOARDS could be defective,

- PCB A1
- PCB A3/2
- The RS232 CABLE between the MASTER PROCESSOR A1 and the MAGAZINE- INTERFACE BOARD could be defective.

- CONNECTOR A1X2 to A4X29

FE ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
Press CLEAR and start again.

CAUSE 2:

HARDWARE problem.
The following CIRCUIT BOARDS could be defective,

- PCB A1
- PCB A3/2
- The RS232 CABLE between the MASTER PROCESSOR A1 and the MAGAZINE INTERFACE BOARD could be defective.
- CONNECTOR A1X2 to A4X29

FF ERROR CODE OF INTERFACE TASK

FUNCTION: INTERNAL ERRORS OF INTERFACE-TASK

PROBLEM:

CES set the ML300 to the inoperative mode.

7. ERROR CODES PROCESSOR UNIT

00 ERROR CODE OF PROCESSOR TASK

FUNCTION:

PROBLEM:

The PROCESSOR TASK has no error.

01 ERROR CODE OF PROCESSOR TASK

FUNCTION: FATAL ERRORS OF PROCESSOR

PROBLEM:

E001 GPMC error.
-Do the PROCESSOR DIAGNOSTICS.
-Press CLEAR and start again.

02 ERROR CODE OF PROCESSOR TASK

FUNCTION: FATAL ERRORS OF PROCESSOR

PROBLEM:

E002 DRYER OVER TEMPERATURE.
-Do the PROCESSOR DIAGNOSTICS.
-Press CLEAR and start again.

03 ERROR CODE OF PROCESSOR TASK

FUNCTION: FATAL ERRORS OF PROCESSOR

PROBLEM:

E003 Loss of UFD LINK.
-Do the PROCESSOR DIAGNOSTICS.
-Press CLEAR and start again.

04 ERROR CODE OF PROCESSOR TASK

FUNCTION: FATAL ERRORS OF PROCESSOR

PROBLEM:

E004 INOPERATIVE TRANSPORT.
-Do the PROCESSOR DIAGNOSTICS.
-Press CLEAR and start again.

05 ERROR CODE OF PROCESSOR TASK

FUNCTION: FATAL ERRORS OF PROCESSOR

PROBLEM:

E005 LOSS OF AIR FLOW.
-Do the PROCESSOR DIAGNOSTICS.
-Press CLEAR and start again.

06 ERROR CODE OF PROCESSOR TASK

FUNCTION: FATAL ERRORS OF PROCESSOR

PROBLEM:

E006 INIT.DEVICE ERROR.
-Do the PROCESSOR DIAGNOSTICS.
-Press CLEAR and start again.
-ML300 software is not compatible with PROCESSOR software version.

20 ERROR CODE OF PROCESSOR TASK

FUNCTION: NONFATAL ERRORS OF PROCESSOR

PROBLEM:

E032 DEVELOPER TANK FILL ERROR.
-Do the PROCESSOR DIAGNOSTICS.
-Press CLEAR and start again.

21 ERROR CODE OF PROCESSOR TASK

FUNCTION: NONFATAL ERRORS OF PROCESSOR

PROBLEM:

E033 FIX TANK FILL ERROR.
-Do the PROCESSOR DIAGNOSTICS.
-Press CLEAR and start again.

22 ERROR CODE OF PROCESSOR TASK

FUNCTION: NONFATAL ERRORS OF PROCESSOR

PROBLEM:

E034 UNABLE TO DETERMINE DEVELOPER TEMPERATURE.
-Do the PROCESSOR DIAGNOSTICS.
-Press CLEAR and start again.

23 ERROR CODE OF PROCESSOR TASK

FUNCTION: NONFATAL ERRORS OF PROCESSOR

PROBLEM:

E035 UNABLE TO DETERMINE FIX TEMPERATURE.
-Do the PROCESSOR DIAGNOSTICS.
-Possible for CUSTOMER to override.

24 ERROR CODE OF PROCESSOR TASK

FUNCTION: NONFATAL ERRORS OF PROCESSOR

PROBLEM:

E036 UNABLE TO DETERMINE DRYER TEMPERATURE.
-Do the PROCESSOR DIAGNOSTICS.
-Possible for CUSTOMER to override.

25 ERROR CODE OF PROCESSOR TASK

FUNCTION: NONFATAL ERRORS OF PROCESSOR

PROBLEM:

E037 LOSS OF DEVELOPER HEATING ABILITY.
-Do the PROCESSOR DIAGNOSTICS.
-Possible for CUSTOMER to override.

26 ERROR CODE OF PROCESSOR TASK

FUNCTION: NONFATAL ERRORS OF PROCESSOR

PROBLEM:

E038 LOSS OF DEVELOPER COOLING ABILITY.
-Do the PROCESSOR DIAGNOSTICS.
-Possible for CUSTOMER to override.

27 ERROR CODE OF PROCESSOR TASK

FUNCTION: NONFATAL ERRORS OF PROCESSOR

PROBLEM:

E039 LOSS OF FIX HEATING ABILITY.
-Do the PROCESSOR DIAGNOSTICS.
-Possible for CUSTOMER to override.

28 ERROR CODE OF PROCESSOR TASK

FUNCTION: NONFATAL ERRORS OF PROCESSOR

PROBLEM:

E040 INOPERATIVE DRYER.
-Do the PROCESSOR DIAGNOSTICS.
-Possible for CUSTOMER to override.

29 ERROR CODE OF PROCESSOR TASK

FUNCTION: NONFATAL ERRORS OF PROCESSOR

PROBLEM:

E041 LOSS OF TRANSPORT SPEED CONTROL.
-Do the PROCESSOR DIAGNOSTICS.
-Possible for CUSTOMER to override.

2A ERROR CODE OF PROCESSOR TASK

FUNCTION: NONFATAL ERRORS OF PROCESSOR

PROBLEM:

E042 LOSS OF ML300 DATA LINK.
-Do the PROCESSOR DIAGNOSTICS.
-Possible for CUSTOMER to override.

2B ERROR CODE OF PROCESSOR TASK

FUNCTION: NONFATAL ERRORS OF PROCESSOR

PROBLEM:

E043 RTC/ STATIC RAM BATTERY FAILURE.
-Do the PROCESSOR DIAGNOSTICS.
-Possible for CUSTOMER to override.

2C ERROR CODE OF PROCESSOR TASK

FUNCTION: NONFATAL ERRORS OF PROCESSOR

PROBLEM:

E044 DISPLAY RAM ERROR.
-Do the PROCESSOR DIAGNOSTICS.
-Possible for CUSTOMER to override.

2D ERROR CODE OF PROCESSOR TASK

FUNCTION: NONFATAL ERRORS OF PROCESSOR

PROBLEM:

E045 DISPLAY COMMUNICATION ERROR.
-Do the PROCESSOR DIAGNOSTICS.
-Possible for CUSTOMER to override.

80 ERROR CODE OF PROCESSOR TASK

FUNCTION: WARNINGS OF PROCESSOR

PROBLEM:

E128 COVER NOT IN PLACE.
-Possible for CUSTOMER to override.

81 ERROR CODE OF PROCESSOR TASK

FUNCTION: WARNINGS OF PROCESSOR

PROBLEM:

E129 TANKS CURRENTLY BEING FILLED.
-Possible for CUSTOMER to override.

82 ERROR CODE OF PROCESSOR TASK

FUNCTION: WARNINGS OF PROCESSOR

PROBLEM:

E130 REPLENISH PUMPS DISABLED.
-Possible for CUSTOMER to override.

83 ERROR CODE OF PROCESSOR TASK

FUNCTION: WARNINGS OF PROCESSOR

PROBLEM:

E131 LOW WATER WARNING.
-Possible for CUSTOMER to override.

84 ERROR CODE OF PROCESSOR TASK

FUNCTION: WARNINGS OF PROCESSOR

PROBLEM:

E132 DEVELOPER UNDER SET TEMPERATURE.
-Possible for CUSTOMER to override.

85 ERROR CODE OF PROCESSOR TASK

FUNCTION: WARNINGS OF PROCESSOR

PROBLEM:

E133 DEVELOPER OVER SET TEMPERATURE.
-Possible for CUSTOMER to override.

86 ERROR CODE OF PROCESSOR TASK

FUNCTION: WARNINGS OF PROCESSOR

PROBLEM:

E134 DRYER UNDER SET TEMPERATURE.
-Possible for CUSTOMER to override.

87 ERROR CODE OF PROCESSOR TASK

FUNCTION: WARNINGS OF PROCESSOR

PROBLEM:

E135 DEVELOPER REPLENISH WARNING.
-Possible for CUSTOMER to override.

88 ERROR CODE OF PROCESSOR TASK

FUNCTION: WARNINGS OF PROCESSOR

PROBLEM:

E136 FIX REPLENISH WARNING.
-Possible for CUSTOMER to override.

89 ERROR CODE OF PROCESSOR TASK

FUNCTION: WARNINGS OF PROCESSOR

Does not exist for the integrated processor of the XML300.

8A ERROR CODE OF PROCESSOR TASK

FUNCTION: WARNINGS OF PROCESSOR

Does not exist for the integrated processor of the XML300.

D0 ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

The SYSTEM-TASK received a wrong ID number.

CAUSE 1:

A software problem occurred.
Press CLEAR and start again.

CAUSE 2:

The POWER SUPPLY is defective. Check in addition the voltages on CIRCUIT BOARDS A1, A3/1 and A3/2.

D2 ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

D3 ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

A software problem occurred.
Press CLEAR and start again.

D4 ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

D5 ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

D6 ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

D9 ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR TASK

PROBLEM:

The OPERATING SOFTWARE is not loaded completely.
Reload the 270RA PROCESSOR OPERATING SOFTWARE with the LAP TOP.

DB ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR TASK

PROBLEM:

The SOFTWARE VERSION of the MASTER PROCESSOR is not compatible with the SOFTWARE VERSION of the 270RA PROCESSOR.

CAUSE 1:

The SOFTWARE is not loaded correctly.
Reload the OPERATING SOFTWARE of the XML300 and of the 270RA PROCESSOR.

CAUSE 2:

PCB A1 (MASTER PROCESSOR) or PCB 500 of the 270RA PROCESSOR is defective.
Replace the faulty PCB and reload the OPERATING SOFTWARE.

DD ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL SYSTEM ERROR

PROBLEM:

A film jam occurred at the PROCESSOR ENTRANCE ROLLERS.

CAUSE 1:

It is a “normal” film jam.
-Pull out the PROCESSOR.
-Remove the jammed FILM.

CAUSE 2:

A failure in the PROCESSOR occurred. The TRANSPORT MOTOR or the FILM DETECTOR SENSOR may be defective.
-Do the PROCESSOR DIAGNOSTICS.

CAUSE 3:

Check for proper set up and operation of PROCESSOR ENTRANCE DETECTORS.

CAUSE 4:

XML300 PLUS only:
The FILM DETECTOR SENSORS B25 / B26 in the PROCESSOR INTERFACE may be defective.
-Start the SENSOR TEST.

DE ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

There is a FILM JAM at the PROCESSOR ENTRANCE.

CAUSE 1:

There is a problem in the PROCESSOR INTERFACE.
-The TIMING BELT TENSION in the PROCESSOR INTERFACE is too high. This may slow down or even stop the STEPPER MOTOR PROCESSOR INTERFACE M13/M_PI.
-Reduce the TIMING BELT TENSION.

CAUSE 3:

One of the 2 free running ONE-WAY CLUTCHES in the PROCESSOR INTERFACE are assembled wrong. If you pull a FILM through the PROCESSOR INTERFACE in direction of the PROCESSOR the toothed BELT must not move. If it moves as you pull, one of the free running ONE-WAY CLUTCHES is assembled wrong.
-Replace the faulty CLUTCH.

CAUSE 4:

XML300 only
The PROCESSOR INPUT SENSOR is defective.
-Run the PROCESSOR DIAGNOSTICS.

CAUSE 5:

The PROCESSOR DRIVE MOTOR is defective.
-Run the PROCESSOR DIAGNOSTICS.

CAUSE 6:

XML300 PLUS only:
The FILM DETECTOR SENSORS B25 / B26 in the PROCESSOR INTERFACE may be defective.
-Start the SENSOR TEST.

F0 ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

F1 ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem.
-The following CIRCUIT BOARDS could be defective,

- PCB A1
- -The RS232 CABLE between the MASTER PROCESSOR A1 and the 270RA PROCESSOR
- could be defective.
- CONNECTOR A1X3 to 270RA Processor.

F2 ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

F3 ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem.

- -The following CIRCUIT BOARDS could be defective,
- PCB A1
- -The RS232 CABLE between the MASTER PROCESSOR A1 and the 270RA PROCESSOR could be defective.
- CONNECTOR A1X3 to 270RA Processor.

F4 ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem.
-The following CIRCUIT BOARDS could be defective,

- PCB A1
- The RS232 CABLE between the MASTER PROCESSOR A1 and the 270RA PROCESSOR could be defective.
- CONNECTOR A1X3 to 270RA Processor.

F5 ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem.
-The following CIRCUIT BOARDS could be defective,

- PCB A1
- The RS232 CABLE between the MASTER PROCESSOR A1 and the 270RA PROCESSOR could be defective.
- CONNECTOR A1X3 to 270RA Processor.

F6 ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem.
-The following CIRCUIT BOARDS could be defective,

- PCB A1
- The RS232 CABLE between the MASTER PROCESSOR A1 and the 270RA PROCESSOR could be defective.
- CONNECTOR A1X3 to 270RA Processor.

F7 ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem.
The following CIRCUIT BOARDS could be defective,

- PCB A1

- The RS232 CABLE between the MASTER PROCESSOR A1 and the 270RA PROCESSOR could be defective.
- CONNECTOR A1X3 to 270RA Processor.

F8 ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

F9 ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

A software problem occurred.
-Press CLEAR and start again.

FA ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

A software communication error occurred.
-Press CLEAR and start again.

FD ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem.
-The following CIRCUIT BOARDS could be defective,

- PCB A1
- The RS232 CABLE between the MASTER PROCESSOR A1 and the 270RA PROCESSOR could be defective.
- CONNECTOR A1X3 to 270RA Processor.

FE ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

This is a HARDWARE/SOFTWARE communication problem.

CAUSE 1:

SOFTWARE problem.
-Press CLEAR and start again.

CAUSE 2:

HARDWARE problem.
-The following CIRCUIT BOARDS could be defective,

- PCB A1
- The RS232 CABLE between the MASTER PROCESSOR A1 and the 270RA PROCESSOR could be defective.
- CONNECTOR A1X3 to 270RA Processor

FF ERROR CODE OF PROCESSOR TASK

FUNCTION: INTERNAL ERRORS OF PROCESSOR-TASK

PROBLEM:

CES set the ML300 to the inoperative mode.

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